

## **COUNTY OF LOS ANGELES**

### DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE ALHAMBRA, CALIFORNIA 91803-1331 Telephone: (626) 458-5100 www.ladpw.org

ADDRESS ALL CORRESPONDENCE TO: P.O. BOX 1460 ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE: WR-1

January 19, 2006

The Honorable Board of Supervisors County of Los Angeles 383 Kenneth Hahn Hall of Administration 500 West Temple Street Los Angeles, CA 90012

Dear Supervisors:

BIG TUJUNGA DAM SEISMIC REHABILITATION
AND SPILLWAY MODIFICATION PROJECT
APPROVE THE INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION
ADOPT THE MITIGATION MONITORING AND REPORTING PROGRAM
SUPERVISORIAL DISTRICT 5
3 VOTES

## IT IS RECOMMENDED THAT YOUR BOARD ACTING AS THE GOVERNING BODY OF THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT:

- Consider the enclosed Initial Study and Mitigated Negative Declaration (IS/MND), including comments received during the public review process, for the proposed Big Tujunga Dam Seismic Rehabilitation and Spillway Modification Project; concur that the project with the proposed mitigation measures will not have a significant effect on the environment; find that the IS/MND reflects the independent judgment of the County; and approve the IS/MND.
- 2. Adopt the enclosed Mitigation Monitoring and Reporting Program to ensure compliance with project changes and conditions adopted to mitigate or avoid significant effects on the environment.
- 3. Authorize Public Works to pay the \$1,250 fee to the State Department of Fish and Game as required by the Fish and Game and Public Resources Codes.

The Honorable Board of Supervisors January 19, 2006 Page 2

## PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

We are recommending your Board approve the IS/MND for the project to fulfill the requirements of the California Environmental Quality Act (CEQA) and adopt the enclosed Mitigation Monitoring Program.

An environmental impact analysis/documentation is a CEQA requirement that is used in evaluating the environmental impacts of this project and should be considered in the approval of the project. As the project administrator, Public Works is the lead agency for preparing the IS/MND for CEQA compliance. The Initial Study of Environmental Factors indicates the project with the proposed mitigation measures will not have a significant effect on the environment. Therefore, in accordance with the Environmental Document Reporting Procedures and Guidelines adopted by your Board on November 17, 1987, an IS/MND was prepared and circulated for public review.

Due to the inclusion of Federal funding for the proposed project, separate documents were prepared in conjunction with the IS/MND for compliance with the requirements of the National Environmental Policy Act (NEPA). The Federal Emergency Management Agency (FEMA) under the Hazard Mitigation Grant Program is in the process of completing and approving a Finding of No Significant Impact for the project in accordance with NEPA.

The proposed project includes structural modifications to Big Tujunga Dam to meet State Division of Safety of Dams current seismic and spillway requirements. The proposed project will rehabilitate and strengthen the dam by creating a thick-arch dam to allow for a higher reservoir pool without the risk of a seismically induced failure. This project will also replace the outlet valves for reliable release of water from the dam for flood control and water conservation purposes. Modifications to the facility include raising parapet walls, modifying the crest of the dam to function as an auxiliary spillway, installing a new dam control system, constructing a new control house, installing new valves and valve house, installing a new emergency generator and fuel tank, and constructing a permanent access road.

In addition to improving seismic stability and flood safety of the dam, the project provides increased water conservation and habitat enhancement opportunities. As a result, the project has received letters of support from the U.S. Forest Service, State Department of Fish and Game, Los Angeles Department of Water and Power, City of Glendale, City of Burbank, Metropolitan Water District, State Department of Water Resources Division of Safety of Dams, and the Upper Los Angeles River Area Watermaster.

The Honorable Board of Supervisors January 19, 2006 Page 3

## <u>Implementation of Strategic Plan Goals</u>

This action is consistent with the County Strategic Plan Goal of Service Excellence as it will ensure the County's compliance with State environmental regulations.

## FISCAL IMPACT/FINANCING

There will be no impact to the County's General Fund.

The Agreement provides for a fee to the State Department of Fish and Game of \$1,250 and is included in the Fiscal Year 2005-06 Flood Control District Fund Budget.

#### FACTS AND PROVISIONS/LEGAL REQUIREMENTS

The IS/MND was sent to the State Clearing House for distribution to various resource agencies for a review period that started on October 4, 2005. Under CEQA, any lead agency preparing an IS/MND must provide a public notice within a reasonable period of time prior for certification of the IS/MND. To comply with this requirement, a Notice of Public Meeting and Availability of the IS/MND pursuant to Section 21092 of the Public Resources Code was published in the *Daily News* on October 7, 8, and 9, 2005, and posted on Public Works' website between October 4, and November 7, 2005. Copies of the IS/MND were provided for public review to the Sunland, Tujunga, Los Angeles City Central, and Lakeview Terrace Libraries. The IS/MND was also available for review online on Public Works' website. A public meeting was held on October 13, 2005, at the Lakeview Terrace Community Center to inform the community about the project and solicit public comments.

The public review period for the IS/MND ended on November 4, 2005. We received comments from one resident of the area, the California Department of Fish and Game, and the California Department of Transportation. The comments and the County's responses, thereto, are included in the final IS/MND.

Based upon the Initial Study of Environmental Factors, it was determined the project with the proposed mitigation measures will have less than a significant effect on the environment. Therefore, approval of the IS/MND is recommended.

## **ENVIRONMENTAL DOCUMENTATION**

CEQA requires public agency decision makers to document and consider the environmental implication of their action.

The Honorable Board of Supervisors January 19, 2006 Page 4

Mitigation measures have been included as part of the project. We have prepared the enclosed Monitoring and Reporting Program that includes maintaining records to ensure compliance with environmental mitigation measures adopted as part of this project. Your Board is being asked to approve the document. Public Works will request the Board to approve advertisement and award of the project at a later date.

A fee must be paid to the State Department of Fish and Game when certain notices required by CEQA are filed with the County Clerk. Upon approval of the IS/MND by your Board, Public Works will submit a check in the amount of \$1,250 to the County Clerk to pay the fee. In addition, a \$25 handling fee will be paid to the County Clerk for processing. We will also file a Notice of Determination in accordance with the requirements of Section 21152(a) of the California Public Resources Code.

## **IMPACT ON CURRENT SERVICES (OR PROJECTS)**

There will be no adverse impact on current County services as a result of this action.

## **CONCLUSION**

Please return one adopted copy of this letter to Public Works.

Respectfully submitted.

DONALD L. WOLFE Director of Public Works

SEK:yg
P:\Dams\Sterling\Big Tujunga Dam\CEQA\Board Letter.doc

Enc.

cc: Chief Administrative Office County Counsel

## INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

## LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

Prepared for

Los Angeles County

Department of Public Works

900 South Fremont Avenue, 2<sup>nd</sup> Floor Alhambra, CA 91803

January 5, 2006



2020 East First St. Suite 400 Santa Ana, CA 92705 714-648-4001

## TABLE OF CONTENTS

SECT	<u>ION</u>		<u>PAGE</u>
1.0	Intr	RODUCTION	1-1
	1.1	Purpose and Need	1-1
	1.2	Scope of Document	1-2
	1.3	Impact Terminology	1-3
	1.4	Initial Findings	1-3
2.0	Pro.	JECT DESCRIPTION	2-1
	2.1	Project Location	2-1
	2.2	Project Zoning Information	2-1
	2.3	Lead Agency	
	2.4	Discretionary Actions	
	2.5	Project Description	
		2.5.1 Dam Modifications	
		2.5.2 Outlets/Drainage	
		2.5.3 Project Construction	
	2.6	Site Characteristics	2-7
	2.7	Site History	2-7
3.0	Envi	RONMENTAL CHECKLIST	3-1
	3.1	Environmental Factors Potentially Affected	3-1
	3.2	Environmental Significance Checklist	3-1
	3.3	Impact Determination Discussion.	3-12
4.0	<b>A</b> ddi	ITIONAL STUDIES AND ANALYSIS	4-1
		4.1.1 Vegetation Communities	
		4.1.2 Special Status Species	
	4.2	vegetation communities	
		4.2.1 Chaparral	
		4.2.2 Successional Sage Scrub	
		4.2.3 Riparian Forest	
		4.2.5 Nonnative Grassland	
		4.2.6 Open Water	
		4.2.7 Developed	4-4
		4.2.8 Ruderal/Disturbed habitat	
	4.0	4.2.9 Ornamental	
	4.3	Special Status Species	
		4.3.1 Sensitive Plant Species	
		4.3.2 Wildlife	
		7.3.3 Camornia species of special Concern (SSC)	4-34

		42.4 Other Barr Consider	4.25
	4.4	4.3.4 Other Rare Species	4-35 4-36
	4.5	Potential Adverse Effects on SENSITIVE SPECIES	
5.0	Сими	LATIVE ADVERSE EFFECTS	5-1
6.0	MITIGA	ATED NEGATIVE DECLARATION PREPARATION	7-1
7.0	Prepa	aration of the Mitigated Negative Declaration	7-1
8.0	Refer	RENCES	8-1
9.0	ORGA	NIZATIONS AND PERSONS CONSULTED	9-1
Appe	endix A	Big Tujunga Dam – Focused Presence / Absence Surveys for Least Bell's Vi Willow flycatcher.	reo and
		Archeological Survey Report	
Appe	ndix B	Mitigation Monitoring Reporting Program Matrix	
Appe	ndix C	Public Notices	
		Notice of Completion	
		Public Meeting Notices	
Appe	ndix D	Public Comments and Responses to Comments	

## 1.0 Introduction

This Initial Study (IS) / Mitigated Negative Declaration (MND) for the proposed Big Tujunga Dam Seismic Upgrade Project (Project) examines current planning documents, previous environmental studies, archaeological reports, and geotechnical information conducted for the proposed project construction and modification limits and surrounding area. In addition to the use of current and existing information, an onsite reconnaissance of the proposed project site was performed for conducting new site analysis as necessary to formulate a basis for determination. This IS/MND and the proposed project do not address any modification to the current dam operations or potential to revise operations in relation to reservoir volumes and planned water releases.

## 1.1 Purpose and Need

This IS/MND assesses the environmental effects of the proposed Big Tujunga Dam Seismic Upgrade (project) as required by the California Environmental Quality Act (CEQA) and in compliance with the State CEQA Guideline Administrative Code 1400 et seq. It serves as an informational document to be used in the local decision making process and does not recommend approval or denial of the proposed project.

The Los Angeles County Department of Public Works (LACDPW) is the Lead Agency under CEQA in cooperation with the Federal Emergency Management Agency (FEMA) for this project and is responsible for evaluating the environmental impacts of the proposed project when considering whether to approve or deny the project. An IS/MND has been prepared for this project because potential significant impacts resulting from the proposed project would be reduced to less than significant levels through the implementation of appropriate mitigation measures.

The project will be constructed under FEMA's Hazard Mitigation Grant Program (HMG Program). The HMG Program was authorized by Section 203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), Title 42 of the United States Code Part 5133, as amended by Section 102 of the Disaster Mitigation Act of 2000, Public Law 106-390, 114 Statute 1552. The purpose of the HMG Program is to assist states and communities to implement a sustained, pre-disaster, natural-hazard mitigation program to reduce overall risk to the population and structures, while also reducing reliance on funding from actual disaster declarations. Therefore, the purpose of the project is to provide program funding to improve the safety of Big Tujunga Dam and prevent failure leading to downstream flooding, human injury, property damage, and damage to sensitive species habitat downstream.

The Big Tujunga Dam was constructed in the early 1930s to provide flood control and water conservation. It currently has a capacity of 5,960 acre-feet (ac-ft) at spillway; however, in 1976 a State-imposed seismic restriction was placed on the dam that limited the long-term impoundment of water to an elevation of 2,213 feet (1,484 ac-ft). A minimum pool level (Elevation 2,205 feet or 1,210 ac-ft) is held to protect the outlet works from sediment and debris. As sediments accumulate within the reservoir the effectiveness of the "minimum pool" is diminished and regular clean outs are performed. The seismic restriction has required operation of Big Tujunga Dam to maintain the reservoir level between the elevation of 2,205 feet (minimum pool) and 2, 213 feet (the restricted level), a difference of 275 ac-ft.

The seismic constraint, however, allows for the temporary impoundment of storm inflows to the capacity of the reservoir, with the water level to be returned to an elevation of 2,213 feet as soon as practicable after each storm event. This is accomplished by opening valves to release water from the reservoir. Inflow into the reservoir is the primary factor that dictates the size of the water releases needed to maintain the restricted elevation levels, as water is released in approximately the same magnitude as the inflow.

Inflow to the dam varies considerably from year to year and storm to storm. For example, between the years of 1932-2001, peak inflow into the reservoir in a given year ranged from 17 cubic feet per second (cfs) to 32,940 cfs. During winter months as storms occur, releases above 125 cfs are quite common. For example, during the El Nino 1997-98 Water Year inflows reached the 8,000 cfs range during the February 1998 storm event. Releases up to 700 cfs were made until the spillway was reached. At spillway elevation, a maximum outflow of approximately 4,000 cfs occurred. After that storm, season inflows during May 1998 ranged from 77-425 cfs, and June inflows continued to remain well above 60 cfs. During drier water years however, inflows during the months of May and June can range from 0-4 cfs. Operation of the reservoir includes planned releases that extend the flow regime into the late Summer for average and above average rainfalls seasons. These releases are used to recharge the aquifer and contribute to the regional water supply. The Project is defined as maintaining the existing release program.

The purpose of the project is to seismically strengthen the dam to remove the threat of failure during a significant seismic event. This will eliminate the seismic restrictions imposed on the facility and allow impoundment of water to spillway level for water and low flow releases. In addition, the spillway will be modified to pass the Probable Maximum Precipitation (PMP) event.

#### 1.2 Scope of Document

The scope of this document evaluates the project's potential impacts to the following resources:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use Planning

- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Services

Additional studies and analyses were conducted and are presented in this document for the purpose of identifying biological issues that may exist on the project site and construction sequencing in accordance with applicable plans.

## 1.3 IMPACT TERMINOLOGY

The terms used in this document to describe the levels of significance of impacts that would potentially result from the proposed project are as follows:

**No Impact:** The proposed project is considered to have no impact if the analysis concludes that the proposed project would not affect an identified resource.

<u>Less Than Significant Impact:</u> If the analysis concludes that the proposed project would cause no substantial adverse change to the environment and that impacts would not require mitigation, the impact is considered less than significant.

<u>Less Than Significant with Mitigation:</u> If the analysis concludes that the proposed project would cause no substantial adverse change to the environment with the inclusion of mitigation measures agreed upon by the applicant, the impact is considered less than significant with mitigation.

#### 1.4 Initial Findings

Subsequent to a preliminary review of the subject proposal, URS has determined the following:

- The proposed action constitutes a project in accordance with CEQA Guidelines, Section 15060, PRC Section 21065.
- This project is discretionary and is not otherwise exempt from CEQA (Guidelines Section 15378(a)).
- The project is not a Ministerial Project under Article 5.
- The project is not an Emergency Project under Article 5.
- The project does not constitute a feasibility or planning study under Section 5.
- The project is not categorically exempt under Section 6
- The project involves FEMA as a cooperating Federal lead agency for NEPA compliance.

## 2.0 PROJECT DESCRIPTION

## 2.1 Project Location

The project site is situated in Section 1, Township 2N, Range 13W, Condor Peak CA Quadrangle, within the San Gabriel Mountains, County of Los Angeles, California and is more particularly described as follows:

Big Tujunga Dam is a flood control and water conservation structure located in Los Angeles County, California, at the base of the San Gabriel Mountains, near the community of Sunland. The reservoir has a storage capacity of 5960 acre-feet (ac-ft) when the reservoir elevation is at the lip of the dam's spillway. The dam protects an estimated 4,600 people living in an inundation area approximating 3.5 square miles. The dam is located in a seismically active area and the potential for earthquake damage is high (see Figure 1 and 2).

## 2.2 Project Zoning Information

The project site is located on land owned and managed by the U.S. Department of Agriculture, Forest Service, Angeles National Forest.

#### 2.3 LEAD AGENCY

Los Angeles County Department of Public Works (LACDPW) in cooperation with the Federal Emergency Management Agency.

Project Lead: Mr. Sterling Klippel, P.E., LACDPW

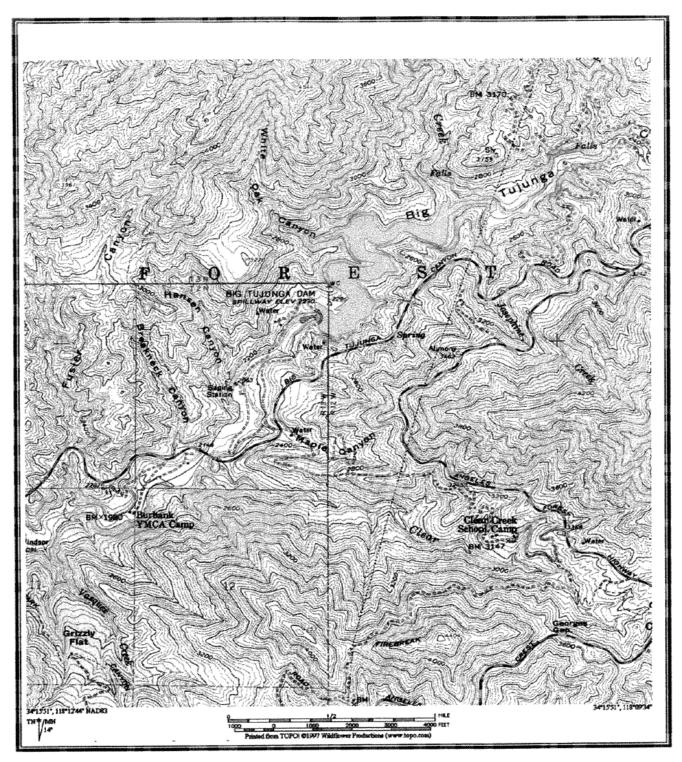
## 2.4 DISCRETIONARY ACTIONS

- This project is subject to the discretionary requirements of the following agencies:
- California Department of Fish and Game;
- United States Department of Agriculture Forest Service, Angeles National Forest Service / Los Angeles River Ranger District;
- Los Angeles Regional Water Quality Control Board;

## 2.5 PROJECT DESCRIPTION

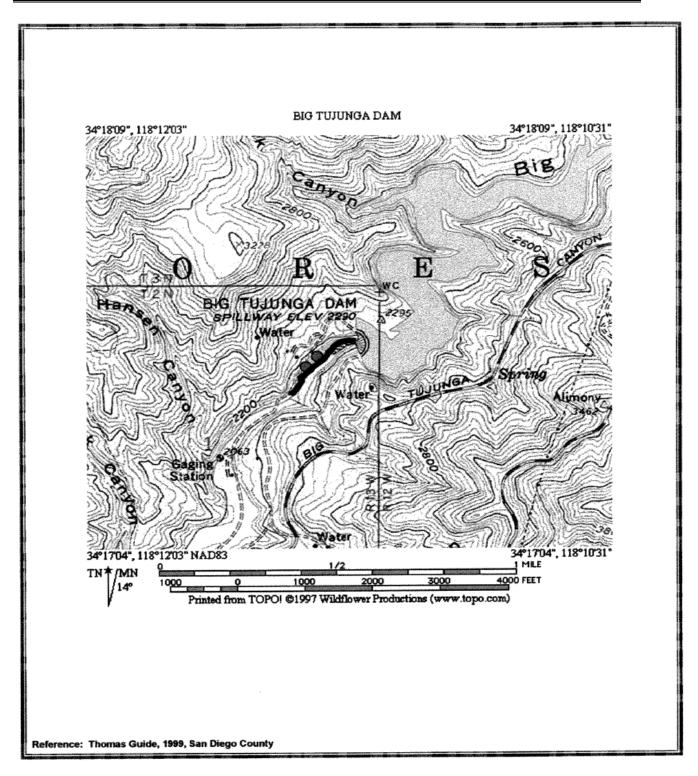
The proposed project will include placement of new concrete on the downstream face of the existing arch dam to create a thick-arch (Figures 1 and 2). The project will also include additional modifications, such as raised parapet walls (including breakaway walls and/or railings at the dam crest), dam crest modified as auxiliary spillway, a new elevator, new lighting and dam controls system, a new control house, new valves (including a 5 cfs low-flow valve) and valve house with crane, new instrumentation, boat dock, and raising a new above-ground diesel tank for a new emergency generator, replacement of a 2-inch diameter water line between both of the dam's water tanks and across the dam crest, erosion protection measures including armoring sides of plunge pool, and construction of a permanent access road.

UKS



**BIG TUJUNGA DAM** 

SITE LOCATION MAP FIGURE 1



**BIG TUJUNGA DAM** 

SITE LOCATION

FIGURE 2

#### 2.5.1 Dam Modifications

The new concrete section will have a crest thickness of 12 feet, a downstream slope of 0.25 to 1 (horizontal to vertical), and base thickness of approximately 66 feet. The thickness of the existing dam base is 73 feet, making the total base thickness of the new thick-arch dam approximately 140 feet. The base-to-height ratio will be approximately 0.6. The base of the thick-arch will include 60-feet concrete access pad.

Existing parapet walls at the dam crest and abutments will be raised to contain and direct flood flows to the existing spillway and over the new thick-arch dam.

The existing gunite along the sides of the plunge pool will be stored with structural reinforced gunite for erosion protection and slope stability.

## 2.5.2 Outlets/Drainage

The existing outlet structures will be extended through the new thick-arch dam section and a partially embedded valve-house to house the new valves will be constructed on the section's downstream face for valve access and overtopping protection. An access gallery and elevator shaft will be constructed within the thickened section of the dam for valve and downstream access from the crest. In addition, a drainage gallery will be constructed within the new section to capture and direct see page flows downstream.

## 2.5.3 Project Construction

During construction, reservoir releases will bypass the plunge pool work limits through a temporary pipeline. The contractor is expected to route the pipe along the existing plunge pool stream-bank and discharge the releases downstream of the work limits into the native streambed. This will maintain the existing discharge operations during construction.

The plunge pool shall be dewatered at the beginning of the construction phase based on environmental regulatory approval for planned actions and impacts. The work limits shall be dewatered by a mechanical pump. The instream water will be discharged back to the existing stream at the downstream end of the plunge pool.

During construction, the reservoir will be lowered to the elevation of the lowest existing discharge valve (El. 2160', reservoir storage 182 acre-feet) in order to minimize foundation seepage and construction dewatering. Lowering the reservoir for maintenance activities is part of the normal operation of this facility. Erosion control measures and best management practices (such as silt fences, gravel bags and/or settling ponds) will be employed as necessary downstream to minimize potential sedimentation or impacts from construction related operations. LADPW's contractor will be required to submit a dewatering plan for the plunge pool and a bypass piping system to convey water downstream past the construction site during construction. The contractor will be required to coordinate with LADPW for necessary reservoir drawdown for construction and any necessary reservoir releases during construction.

UKS

Once the dewatering plan is approved, the plunge pool will be drained and the plunge pool fish will be relocated.

Foundation excavation spoils from the downstream areas in the plunge pool and canyon walls will be transported to the Maple Sediment Placement Site, approximately one mile southwest of the project site. Traffic controls will be employed were material will be transported across Big Tujunga Canyon Road. Site access during construction will allow for any necessary dam maintenance and operations, and will be coordinated between LADPW and its contractor.

Construction staging areas, will be located on the left abutment parking area, on two adjacent areas on either side of the main entrance gate, on downstream end of the existing plunge pool, and on the right abutment south of the helipad and upstream of the existing spillway.

Construction is expected to occur during a two year time frame but may be extended to a three year construction schedule. The schedule is established on a standard work week. Construction, however, may require twenty-four hour days for certain activities such as concrete pouring or other time restricted actions. No night delivery of materials or night construction travel is planned as part of this schedule.

#### 2.5.3.1 Concrete Thick-Arch Dam Section Construction

- Construct cofferdam (if needed);
- Dewater excavation site;
- Remove gunite from footprint of new thick-arch dam section (canyon walls downstream of existing dam);
- Excavate sediments and weathered rock for new concrete foundation;
- Prepare excavated foundation areas to receive new concrete, including "dental" concrete and a pressure grouting program (if needed);
- Prepare existing concrete dam surface to receive new concrete;
- Construct formwork and pour concrete in lifts;
- Install elevator and galleries as thick-arch dam construction proceeds;
- Modify, extend, and install outlet works as thick-arch dam construction proceeds;
- Install instrumentation as thick-arch dam construction proceeds;
- Construct permanent access road to base of dam;
- Restore existing gunite with structural reinforced gunite for erosion protection on canyon walls along plunge pool; and
- Complete instrumentation installation.

During this portion of project construction, a temporary storm flow bypass will be employed to keep the area immediately downstream of the existing dam dry for the excavation of the foundation of the thickened arch. Penstock No. 1 will be extended past the construction excavation area to release downstream of the plunge pool. The outlet will be dissipated into a rock pile or other device to reduce the velocity and minimize the potential for streambed and bank erosion. A coffer dam may be used to keep the water in the downstream area of the plunge pool from entering the excavation area. The penstock

extension (bypass) will have a capacity of approximately 200 cfs. An existing slide gate will be utilized to stop dam outflows if needed; however, it is anticipated that the gate will be kept 100 percent open during construction activities. This will enable the reservoir to mimic natural conditions for typical annual storm events.

LACDPW developed a hydraulic routing model to simulate dam operations (proposed construction operations and current operation plan) for actual recorded storm events that range from approximately a 1-year event to a greater than 10-year event, to demonstrate the effects of the described operational modifications during construction. The results indicate that there are no significant changes to peak outflow rates between the proposed operation during construction and the current operation plan. Moreover, these changes are insignificant when compared to the natural variability of flow rates experienced by the downstream channel from year to year and storm to storm. Based on a comparison of these model results to over 60 years of historical dam outflows, the proposed operation plan will not have a significant effect on flows downstream of the dam.

RUNOFF FREQUENCY STANDARD FOR BIG TUJUNGA DAM											
Runoff Frequency Flow Rate (cfs) vs. Recurrence Interval In Years											
500	200	100	50		10	5	2	1.25	1.11	1.05	1.01
Year	Year	Year	Year	25 Year	Year	Year	Year	Year	Year	Year	Year
(cfs)	(cfs)	(cfs)	(cfs)	cfs	(cfs)						
120,000	71,600	46,700	29,200	17,400	7,680	3,550	777	158	66	32	7

(Source: Los Angeles County)

LACDPW has measured the flow rate and velocity at River Station 100 just upstream of the bridge (2005). Velocity ranges from 0 to 26 feet per second with flow from 0 to 10,000 cubic feet per second. At a flow of 1,000 cfs the velocity reaches 15 fps and then gradually increases to 26 fps. The subsequent increases in flow are not correlated to substantial increases in velocity as occurs in the first 1,000 cfs increase.

#### 2.5.3.2. Appurtenant Structures

- Demolish existing parapet wall and construct new parapet/training walls/fences;
- Demolish old control house and install new control house;
- Construct boat dock on reservoir:
- Install new control system;
- Install miscellaneous items, including new electrical, lighting, fire-suppression water line, and instrumentation; and
- Construct a concrete splash pad and modified plunge pool for outflow velocity dissipation.

## 2.6 SITE CHARACTERISTICS

The project area is located in Big Tujunga Canyon in Los Angeles County, California, in the San Gabriel Mountains within the Angeles National Forest (Figure 1). The closest cities are Hidden Springs to the north on Big Tujunga Canyon Road, and the foothill communities of Sunland and Tujunga south along Big Tujunga Road near I-210. The area surrounding the dam and operational buildings is comprised of native vegetation that includes riparian forest, oak woodland and chaparral. This native habitat is suitable to support sensitive species, and critical habitat for two listed species. The project would affect 14.4 acres of existing vegetation communities, with the majority consisting of bare or previously disturbed areas supporting non-native vegetation. Approximately 0.5 acres of native habitat including (no coastal sage scrub according to this report) a small area of riparian habitat will be temporarily affected by the proposed project. The primary fill site, and storage and staging areas support non-native vegetation.

## 2.7 SITE HISTORY

The Big Tujunga Dam was constructed in the early 1930's to provide flood control and water conservation. It currently has a capacity of 5,960 acre-feet at spillway level. A minimum pool level (El. 2,205 feet or 1,210 ac-ft) is held to protect the outlet works from sediment and debris. As sediments accumulate within the reservoir the effectiveness of the minimum pool is diminished. Without regular clean outs, the minimum pool may need to be raised to protect the outlet works.

In 1976 a State-imposed seismic restriction was placed on the dam that limited the long-term impoundment of water to a maximum Elevation of 2,214 feet. This seismic constraint however, allows for the temporary impoundment of storm inflows to the capacity of the reservoir, with the water level to be returned to maximum elevation of 2,214 feet as soon as practicable after each storm event.

The restriction has limited LACDPW to maintaining the reservoir between Elevation 2,205 feet and 2,214 feet. The difference allows 275 ac-ft of storage. Inflow into the reservoir primarily dictates the volume of the water released. During winter months as storms occur, releases above 125 cfs are quite common.

As an example, during the El Nino 1997-98 water year the reservoir had inflows in the 8,000-cfs range during the February 1998 storm event. Releases up to 700 cfs were made until the water elevation reached the spillway. At spillway elevation, a maximum outflow of approximately 4,000-cfs occurred. After that storm, season inflows during May 1998 ranged from 77-425 cfs. June 1998 inflows remained well above 60 cfs. To maintain the reservoir water surface elevation below the State-imposed restricted elevation, water releases of the same magnitude are required under those circumstances. If the water elevation needs to be lowered, even larger releases are necessary. Therefore, it is difficult to assume that during certain months, outflow can be limited to a preset rate. It is completely dependent upon the inflow. During drier water years, inflows during the months of May and June typically range from 0 to 4 cfs.

## 3.0 ENVIRONMENTAL CHECKLIST

## 3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" (no Potentially Significant Impact boxes checked in list following therefore why would we check the biological resources box?) as indicated by the checklist on the following pages:

	Aesthetics	Agriculture Resources		Air Quality
Ξ	Biological Resources	Cultural Resources		Geology /Soils
	Hazards & Hazardous Materials	Hydrology / Water Quality		Land Use / Planning
	Mineral Resources	Noise		Population / Housing
	Public Services	Recreation		Transportation/Traffic
	Utilities / Service Systems	Mandatory Findings of Sign	nifican	ce

None of the above listed environmental resources is expected to be significantly affected by the project with the proposed mitigation.

**DETERMINATION:** Less than significant with mitigation incorporated.

## 3.2 Environmental Significance Checklist

This checklist identifies physical, biological, social and economic factors that may be affected by the proposed project. The words "significant" and "significance" used in the checklist relate to impact determinations associated with potential impacts as defined by CEQA guidelines 15063.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS Would the project:				
a) Have a substantial adverse effect on a scenic vista?				•
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				•
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				•
d) Create a new source of substantial light or glare				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impac
which would adversely affect day or nighttime views in the area?				•
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997), prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				•
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				•
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				•
III. AIR QUALITY Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				•
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				•
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				•



d) Expose sensitive receptors to substantial pollutant concentrations?			•
e) Create objectionable odors affecting a substantial number of people?			•
IV. BIOLOGICAL RESOURCES Would the project:			
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	•		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or United States Fish and Wildlife Service?		•	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		•	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			•
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			•
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			•
V. CULTURAL RESOURCES Would the project:			
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?			•

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?		•
c) Directly or indirectly destroy a unique pale- ontological resource or site or unique geologic feature?		•
d) Disturb any human remains, including those interred outside of formal cemeteries?		•
VI. GEOLOGY AND SOILS Would the project:		
a.) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:		
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.		•
ii) Strong seismic ground shaking?		•
iii) Seismic-related ground failure, including liquefaction?		•
iv) Landslides?		•
b) Result in substantial soil erosion or the loss of topsoil?		•
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		•
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		•
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal		

systems where sewers are not available for the disposal of wastewater? .		•
VII. HAZARDS AND HAZARDOUS MATERIALS Would the project:		
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		•
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of the hazardous materials into the environment?		•
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ½-mile of an existing or proposed school?		•
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public, or the environment?		•
e) For a project located within an airport land use plan, or where a plan has not been adopted, within two miles of a public airport, would the project result in a safety hazard for people residing or working in the project area?		•
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?		•
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		•
h) Exposure people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?		•
VIII. HYDROLOGY AND WATER QUALITY Would the project:		
a) Violate any water quality standards or waste discharge requirements?  The project will comply with all required federal,		•

state, and local permits applicable to the preservation of water quality and the regulation of pollution discharge.		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?		•
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river in a manner that would result in substantial erosion or siltation on- or off-site?		•
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?		•
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?		•
f) Otherwise substantially degrade water quality?		•
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?		•
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?		•
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?		•
j) Inundation by seiche, tsunami, or mudflow?		•
IX. LAND USE AND PLANNING - Would the project:		
a) Physically divide an established community?		•

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?		•
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?		•
X. MINERAL RESOURCES Would the project:		
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?		•
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?		•
XI. NOISE Would the project result in:		
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies		•
b) Exposure of persons to or generation of excessive groundborne vibration or ground borne noise levels?		•
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?		•
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		•
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?		•
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?		•
XII. POPULATION AND HOUSING Would the		

project:		
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?		•
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?		•
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?		•
XIII. PUBLIC SERVICES		
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:		
Fire protection?		•
Police protection?		•
Schools?		•
Parks?	 	
Other public facilities?		
XIV. RECREATION		
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?		•
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?		•
XV. TRANSPORTATION/TRAFFIC Would the		

project:		
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?		•
b) Exceed, either individually or cumulatively, a level of service (LOS) standard established by the county congestion management agency for designated roads or highways?		•
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?		•
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		•
e) Result in inadequate emergency access?		
f) Desult in inchequate modeling connective?		•
f) Result in inadequate parking capacity?		•
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (i.e., bus turnouts, bicycle racks)?		•
XVI. UTILITIES AND SERVICE SYSTEMS Would the project:		
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?		•
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?		•
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?.		•



d) Have sufficient water supplies available to serve		
the project from existing entitlements and resources, or are new or expanded entitlements needed?		•
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?		•
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?		•
g) Comply with federal, state, and local statutes and regulations related to solid waste?		•
XVII. MANDATORY FINDINGS OF SIGNIFICANCE		
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.	•	
Without implementation of mitigation to protect water quality during construction, the project has the potential to directly and indirectly affect sensitive or protected wildlife species through the potential degradation of the quality of the environment.		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		•
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		•

DETERMIN	NATION: (To be completed by the Lead Agency)	
	I find that the proposed project COULD NOT have a NEGATIVE DECLARATION will be prepared.	a significant effect on the environment, and
*	I find that although the proposed project could have there will not be a significant effect in this case becamade by or agreed to by the project proponent. A M DECLARATION will be prepared.	ause revisions in the project have been
	I find that the proposed project MAY have a "poten significant unless mitigated" impact on the environr adequately analyzed in an earlier document pursuant been addressed by mitigation measures based on the sheets. An ENVIRONMENTAL IMPACT REPORT effects that remain to be addressed.	ment, but at least one effect 1) has been at to applicable legal standards, and 2) has be earlier analysis as described on attached
	I find that although the proposed project could have because all potentially significant effects (a) have b or NEGATIVE DECLARATION pursuant to applie or mitigated pursuant to that earlier EIR or NEGAT or mitigation measures that are imposed upon the project.	een analyzed adequately in an earlier EIR cable standards, and (b) have been avoided TVE DECLARATION, including revisions
Sterling	TERLING KLIPPEL Klippel	10/01/05 Date
Signatur	Sterling Flippel	10/01/05 Date

#### 3.3 IMPACT DETERMINATION DISCUSSION

#### **Biological Resources**

#### 3.3.1

Based on surveys conducted between 2000 and 2004, the project limits and adjacent upland habitat do not support any federal or state protected species that may occur in the project area. The project limits support state sensitive species including the Arroyo Chub and potential sensitive plant species based on habitat characteristics and known range. Santa Ana Sucker occurs more than one mile downstream of the project limits. It is unlikely that this species could migrate upstream during low flows because of existing physical instream impediments between occupied habitat and the downstream project limits. It is unlikely that the Sucker could move upstream during during intermittent high flows because of the flow rates and water velocity that exist during storm events. The project as described would not have a substantial adverse affect on any of these protected or sensitive species due to direct loss of habitat. Potential indirect affects are not expected to be adversely significant with specified mitigation for construction activity.

#### 3.3.2

The project will not affect riparian habitat. It will affect unoccupied mapped Critical Habitat for the Redlegged Frog. The site is within the mapped Critical Habitat but it currently supports predatory invasive species and does not support constituent elements that support the protected species.

#### 3.3.3

The project will affect Jurisdictional Waters of the U.S. with filling and grading within the streambed. Impacts will be permitted and mitigated through permit processes administered by U.S. Army Corps of Engineers, California Department of Fish and Game, and Regional Water Quality Control Board. Construction actions will comply with NPDES permit requirements including implementation of a SWPPP.

#### 3.3.4

The proposed project will not significantly alter the existing conditions and wildlife movement or access to nursery areas.

#### 3.3.5

No mature oak trees or other trees conserved through the Los Angeles County tree ordinance will be affected by the planned project that have not been identified through other permits.

3-12

JRS .....

3.3.6

No Habitat Conservations Plan or Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan have been finalized or drafted for the project limits or area of affect. The project does not include any change to current facility operation or planned water releases.

## **Hydrology and Water Quality**

3.3.7

The project as proposed will not significantly alter the existing drainage pattern of the affected streambed. No increase in erosion or sedimentation on or off site is expected to occur from this proposed action.

## 4.0 Studies and Analysis - Biological Resources

## 4.1.1 Vegetation Communities

URS biologists surveyed the vegetation in the project study area on June 1, 2000, and April 28 and July 22, 2004. Surveys involved identification of vegetation communities per Holland (1986) by determining the dominant species in the plant community. Aerial photographs were used to aid in identifying the vegetation. Vegetation maps were then prepared using GIS ArcView mapping utilities overlaid onto recent aerial photographs of the project area.

## 4.1.2 Special Status Species

Focused surveys for listed species were conducted in 2000 and 2004 by URS Corporation biologists. In June and July of 2000, focused surveys for least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*) were conducted, along with a general vegetation survey. In 2004, focused surveys for least Bell's vireo, southwestern willow flycatcher, and rare plants were conducted. Survey dates, conditions and personnel can be found in Table 1. In addition to surveying for the above species, incidental observations of other sensitive species were noted.

The least Bell's vireo surveys were conducted in accordance with United States Fish and Wildlife Service (USFWS) protocol (USFWS 1992 and 2001) by a USFWS-permitted biologist. In 2000, seven surveys were conducted at least one week apart between June and July during suitable weather conditions. In 2004, the eight required surveys were conducted at least 10 days apart between April and July during suitable weather conditions. Riparian habitat from the plunge pool to approximately 2000 feet downstream was surveyed in the summer of 2000. In 2004, the survey area was expanded to approximately 1 mile of riparian habitat, and the area between the plunge pool and the Big Tujunga Canyon Road Bridge was surveyed. The surveys were conducted with the aid of 8 X 42 power or similar binoculars, and without the use of pre-recorded least Bell's vireo vocalizations. Avian species were identified by vocalization, or direct observation.

Covering the same area and utilizing similar methods in the respective years, the southwestern willow flycatcher surveys were conducted in accordance with the USFWS protocol (USFWS 2000) by a USFWS-permitted biologist. The five southwestern willow flycatcher surveys were conducted in concert with the least Bell's vireo surveys, and pre-recorded southwestern willow flycatcher vocalizations were played as needed.

In addition to the avian surveys, surveys for rare plant species were conducted by a qualified biologist at various times during 2004 the blooming season. In 2002, a focused survey for presence and abundance of Santa Ana Suckers and other sensitive aquatic species was also performed that investigated the plunge pool, stream, pools and culverts to approximately 1.6 km downstream of the dam. These survey dates are also listed in Table 1. The results of the avian and botanical surveys are found in the respective species' account.

Table 1 URS Survey Dates and Conditions - Big Tujunga Dam 2000, 2004

Date	Survey Type	Survey Time	Weather Conditions	Personnel
6/1/00	Least Bell's Vireo, Southwestern Willow Flycatcher, Botanical Survey	0630- 1045	75-80°F, Clear, Wind: 0-2 mph	B. Lohstroh, J. Rocks
6/21/00	Least Bell's Vireo, Southwestern Willow Flycatcher	0700- 1000	75-80°F, Clear, Wind: 0-3 mph	B. Lohstroh, H. Green
6/30/00	Least Bell's Vireo, Southwestern Willow Flycatcher	0600- 0800	75-80°F, Clear, Wind: 0-2 mph	H. Green
7/7/00	Least Bell's Vireo, Southwestern Willow Flycatcher	0700- 0845	70-75°F, Clear, Wind: 0-2 mph	H. Green
7/14/00	Least Bell's Vireo, Southwestern Willow Flycatcher	0630- 0830	75-80°F, Clear, Wind: 0-2 mph	H. Green
7/21/00	Least Bell's Vireo, Southwestern Willow Flycatcher	0630- 0900	75-80°F, Clear, Wind: 0-2 mph	H. Green, P. Richards
7/28/00	Least Bell's Vireo, Southwestern Willow Flycatcher	0630- 0900	80-85°F, Clear, Wind: 5 mph	H. Green, P. Richards
7/17/02	Fish Survey of Big Tujunga Creek below Big Tujunga Dam No. 1	n/a	n/a	C.Swift, T. Herzog
4/28/04	Least Bell's Vireo, Southwestern Willow Flycatcher, Botanical Survey	0930- 1210	67-8°F Clear, Wind: 2-5 mph	B. Lohstroh, J. Rocks, E. Howard
5/10/04	Least Bell's Vireo	0830- 1012	65-69°F Clear, Wind: 0-6 mph	B. Lohstroh
5/20/04	Least Bell's Vireo, Southwestern Willow Flycatcher	0800- 1000	50-67°F Clear, Wind: 0-3 mph	B. Lohstroh, E. Howard, D. Kisner
6/1/04	Least Bell's Vireo	0840- 1045	74-82°F Clear, Wind: 0-4 mph	B. Lohstroh
6/11/04	Least Bell's Vireo, Southwestern Willow Flycatcher	0830- 1000	65-70°F Clear, Wind: 2-6 mph	D. Kisner
6/22/04	Least Bell's Vireo, Southwestern Willow Flycatcher	0750- 1045	79-68 Clear, Wind: 0-9 mph, gusty	B. Lohstroh, D. Kisner
7/2/04	Least Bell's Vireo, Southwestern Willow Flycatcher	0900- 1100	69-75 Clear, Wind: 0-5 mph	B. Lohstroh, D. Kisner
7/13/04	Least Bell's Vireo, Southwestern Willow Flycatcher	0900- 1100	69-81°F, Clear, Wind: 0-5 mph	B. Lohstroh, D. Kisner
7/22/04	Botanical Survey	0850- 1230	78-92°F, Clear, Wind: 0-3 mph	B. Lohstroh, J. Rocks



## 4.2 VEGETATION COMMUNITIES

## 4.2.1 Chaparral

Chaparral is widely distributed throughout California on dry slopes and ridges at low and medium elevations where it occupies thin, rocky, or heavy soils. It is typically composed of broad-leaved, sclerophyllous shrubs (stiff leathery leaves that prevent water loss), although species composition varies considerably with location. The plants of this community have developed the ability to survive recurrent fires by producing seeds that require a fire-related cue (heat, smoke, or charcoal) to stimulate germination and/or by resprouting from the root crown after the surface vegetation have burned. Species of the following genera are characteristic in chaparral communities: *Adenostoma*, *Arctostaphylos*, *Ceanothus*, *Cercocarpus*, *Heteromeles*, shrubby *Quercus*, and *Rhamnus*.

Chaparral is the dominant plant community found throughout the project area, especially on the canyon and mountain slopes. In general, chaparral within the study area is dominated by chamise (*Adenostoma fasciculatum*). Other constituents of this plant community include holly-leaf cherry (*Prunus ilicifolia*), our Lord's candle (*Yucca whipplei*), deerweed (*Lotus scoparius*), and yerba santa (*Eriodictyon crassifolium*).

## 4.2.2 Successional Sage Scrub

Successional sage scrub is a post-fire successional community, dominated by coastal sage scrub species, that eventually transitions back into a chaparral community. In some areas within the project area, this plant community is dominated by black sage (*Salvia mellifera*), but other areas support other constituents, including buckwheat (*Eriogonum fasciculatum*) deer weed (*Lotus scoparius*), and yerba santa (*Eriodictyon crassifolium*). Black sage dominated successional sage scrub exists in the project area just downhill from the north water tank, and buckwheat/deer weed-dominated successional sage scrub exists near the helipad adjacent to the dam.

#### 4.2.3 Riparian Forest

Riparian forest is an open- or closed-canopy forest that is generally greater than 6 meters (20 feet) high and occupies relatively broad drainages and floodplains supporting perennially wet streams. This community is dominated by mature individuals of winter deciduous trees, including Fremont's cottonwood (*Populus fremontii* ssp. *fremontii*) and several species of willows (*Salix gooddingii*, *S. lasiandra*, *S. lasiolepis*), and it often has a dense understory of shrubby willows, mulefat (*Baccharis salicifolia*), and mugwort (*Artemisia douglasiana*). The dominant species require moist, bare mineral soil for germination and establishment (Holland, 1986). This is provided after floodwaters recede, leading to uniform-aged stands. Riparian forest differs from riparian woodland in that western sycamore (*Platanus racemosa*) is generally lacking or is at least not dominant. Coast live oaks (*Quercus agrifolia*) are also mostly absent from this community. Within the project area, well-developed riparian forest associated with Big Tujunga Wash exists immediately downstream of the plunge pool and continues to the first low-flow crossing. Downstream of this crossing, a relatively more open canopy riparian forest exists, and is intermittently broken up by disturbed areas, patches of non-native grassland, and concrete-lined stream channelization. Riparian forest is an important and valuable habitat to wildlife and often supports numerous species of migratory breeding birds in the spring and summer.

#### 4.2.4 Coast Live Oak Woodland

Coast live oak woodlands are dominated by the coast live oak (*Quercus agrifolia*). Dense phase oak woodland dominated by coast live oak typically occurs on north-facing slopes or in shaded ravines, and intergrades with coastal sage scrub or chaparral on drier sites (Holland 1986). The shrub layer is typically poorly-developed but may include toyon, currant (*Ribes* spp.), laurel sumac, and desert elderberry. The

herbaceous component is continuous and often dominated by nonnative, weedy species. Despite the level of disturbance in some areas, oak woodland provides habitat for many wildlife species which would not otherwise be found in the vicinity. Patches of coast live oak woodland are scattered throughout the project area, located primarily in numerous ravines and narrow canyons that connect into the riparian habitat associated with Big Tujunga Wash. A large patch of coast live oak woodland exists adjacent to the riparian habitat downstream of the plunge pool.

#### 4.2.5 Nonnative Grassland

Nonnative grassland generally occurs on fine-textured loam or clay soils, which are moist or even waterlogged during the winter rainy season and very dry during the summer and fall. It is characterized by a dense to sparse cover of annual grasses, often with native and nonnative annual forbs (Holland 1986). This habitat is a disturbance-related community most often found in old fields or openings in native scrub habitats. Typical grasses within the study region include wild oat (*Avena barbata*), soft chess (*Bromus mollis*), red brome (*Bromus madritensis* ssp. *rubens*), and ripgut brome (*Bromus diandrus*). Nonnative grassland within the project area occurs in three associations: nonnative grassland/ornamental habitat, nonnative grassland/ruderal habitat, and nonnative grassland/successional scrub habitat. These associations are dominated by nonnative grassland; however constituents of ornamental, ruderal, or successional scrub habitats are scattered throughout these areas. Nonnative grassland also occurs in many areas onsite as an understory component of riparian forest and ornamental habitat.

## 4.2.6 Open Water

Open water includes reservoirs, lakes, ponds, and relatively large sloughs, channels, and rivers or streambeds that contain water throughout the year. Open water habitat occurs in the project area above the Big Tujunga Dam (i.e., Big Tujunga Reservoir), and below the dam in the form of a plunge pool.

#### 4.2.7 Developed

Developed areas support no native vegetation and may be additionally characterized by the presence of human-made structures such as buildings or roads. Developed areas in the project area include the Big Tujunga Dam and support structures, and roads. Steep slopes stabilized with a coating of sprayed concrete (gunite) are also considered developed areas.

#### 4.2.8 Ruderal/Disturbed habitat

Disturbed habitat is any land on which the native vegetation has been significantly altered by agriculture, construction, or other land-clearing activities, and the species composition and site conditions are not characteristic of the disturbed phase of one of the plant associations within the study region. Such habitat is typically found in vacant lots, roadsides, or construction staging areas, and is dominated by nonnative annual species and perennial broadleaf species. Ruderal plant species such as mustards (*Brassica* spp., *Hirschfeldia incana*), tree tobacco (*Nicotiana glauca*), Russian-thistle (*Salsola tragus*), sweet fennel (*Foeniculum vulgare*), and horseweed (*Conyza* spp.), often occur on the heavily compacted soils resulting from disturbance. Ruderal/disturbed habitat occurs near the helipad, and above the water level of Big Tujunga Reservoir.

#### 4.2.9 Ornamental

Ornamental vegetation is generally characterized by plant species placed by humans in areas to provide some function, such as decorative landscaping or shade to developed areas. Ornamental species can also become naturalized in areas and encroach into native habitats. Within the project area, ornamental habitat is found in the form of numerous pine trees (*Pinus* sp.) on the north side of the Big Tujunga Dam. Other areas of ornamental habitat are found associated with structures down slope from the north water tank.

Pine trees as well as oleander (*Nerium oleander*) and fruit trees (*Prunus* sp.) are found in this area. Many of these areas have an understory of nonnative grassland or successional scrub species.

Table 2.

Acreages of Existing Vegetation Communities Onsite
Within The Proposed Impact Area

Vegetation/Land Cover	Existing Acreage	Acreage Impacted
Chaparral	209.7	0.1
Disturbed Chaparral	1.4	0
Coast Live Oak	4.6	0
Coast Live Oak Woodland	2.2	0
Developed	22.0	4.0
Non-Native Grassland/Ornamental	0.2	0.2
Non-Native Grassland/Ruderal	22.1	5.0
Non-Native Grassland/Successional Scrub	0.3	0
Total Non-Native Grassland Habitats	22.6	5.2
Open Water	14.5	1.0
Ornamental	7.1	0.1
Riparian Forest	17.2	0.5
Ruderal/Disturbed	6.1	3.0
Successional Scrub	3.0	0.5
Total	310.4	14.4

## 4.3 SPECIAL STATUS SPECIES

Based on the reference information, 43 special status plant species (Table 3) and 46 special status wildlife species (Table 4) have the potential to occur within the Angeles National Forest. Species identified with no potential to occur because of lack of appropriate habitat in the project area are not discussed further in this report. As a result of the field reconnaissance and background review, it was determined that the project area could provide habitat suitable to support 17 species of sensitive plants, five of which are listed as federal or state endangered, threatened, or rare, or proposed endangered or threatened under the USFWS jurisdiction; and 2 sensitive wildlife species, both of which are listed as endangered.

## 4.3.1 Sensitive Plant Species

In accordance with CEQA Guidelines the literature reviewed identifies 43 sensitive plant species that have the potential to occur within the vicinity of the survey area in the Angeles National Forest. The

current status of each of the sensitive species and their potential to occur on the project are summarized below. Three of these species are listed as federal or state endangered, threatened, or rare, or proposed endangered or threatened. The three listed species and 14 additional sensitive species have a potential to occur within the project area.

.

Table 3.
Sensitive Plant Species Potentially Occurring Within
The Project Region in Big Tujunga
Los Angeles County, California

Special Status Species	Habitat and Distribution	Flowerin g Season	Status Designation	Potential for Occurrence
Arctostaphylos gabrielensis San Gabriel Manzanita	Evergreen shrub. Occurs in chaparral on rocky soils at approximately 5,000 feet in elevation. Known only from Mill Creek Summit.	March	Fed: None CA: None CNPS: List 1B R-E-D: 3-2-3	Absent. The site is below the known elevation range for the species.
Arenaria macradenia var. kuschei Kusche's Sandwort	Perennial herb. Occurs in openings in chaparral, on granitic soils. From 4,265 to 6,070 feet in elevation.	June - July	Fed: None CA: None CNPS: List 1B R-E-D: 3-3-3	Absent. The site is below the known elevation range for the species.
Aster greatae Greata's Aster	Rhizomatous perennial herb. Occurs in chaparral, broadleafed upland forest, cismontane woodland, lower montane coniferous forest, and riparian woodland on mesic soils. From 985 to 6,595 feet in elevation.	June - October	Fed: None CA: None CNPS: List 1B R-E-D: 2-1-3	Moderate. Appropriate habitat occurs in the chaparral and riparian woodland.
Astragalus bicristatus Crested Milk-vetch	Perennial herb. Occurs in lower montane coniferous forest, and upper montane coniferous forest on sandy or rock soils. From 5,580 to 9,005 feet in elevation.	May - August	Fed: None CA: None CNPS: List 4 R-E-D: 1-1-3	Absent. The site is below the known elevation range for the species.

Special Status Species	Habitat and Distribution	Flowering Season	Status Designation	Potential for Occurrence
Astragalus brauntonii Braunton's Milk- vetch	Perennial herb. Occurs in coastal scrub, closed-cone coniferous forest, and valley and foothill grassland. Usually on granite, limestone, or gravelly clay soils in disturbed areas. From 13 to 2,100 feet in elevation.	February – July	Fed: END CA: None CNPS: List 1B R-E-D: 3-3-3	Low. Appropriate habitat occurs in the disturbed areas, but the site is at the upper elevation range for the species.
Astragalus lentiginosus var. antonius San Antonio Milkvetch	Perennial herb. Occurs in lower montane coniferous forest and upper montane coniferous forest. From 4,920 to 8,530 feet in elevation.	April - July	Fed: None CA: None CNPS: List 1B R-E-D: 3-1-3	Absent. The site is below the known elevation range for the species.
Atriplex parishii Parish's Brittlescale	Annual herb. Occurs in chenopod scrub, vernal pools, and playas, usually, on drying alkali flay with fine soils. From 10 to 6,230 feet in elevation.	June - October	Fed: None CA: None CNPS: List 1B R-E-D: 3-3-2	Absent. No appropriate habitat on the site.
Berberis nevinii Nevin's Barberry	Evergreen shrub. Occurs in chaparral, coastal and riparian scrub communities and cismontane woodland, in gravelly soils. Associated with steep slopes and low-grade sandy washes. From 950 to 5,170 feet in elevation.	March - April	Fed: END CA: END CNPS: List 1B R-E-D: 3-3-3	Moderate. Appropriate habitat occurs in the chaparral and riparian forest.
Botrychium crenulatum Scalloped Moonwort	Perennial rhizomatous herb. Occurs in bogs and fens, lower montane coniferous forest, meadows and seeps, and marshes and swamps. From 5,000 to 10,765 feet in elevation.	June - July	Fed: None CA: None CNPS: List 2 R-E-D: 2-2-1	Absent. No appropriate habitat on the site. The site is below the known elevation range for the species.
Calochortus clavatus var. gracilis Slender Mariposa Lily	Bulbiferous perennial herb. Occurs in chaparral and coastal scrub Often in shaded foothill canyons and on grassy slopes with other habitat. From 1,180 to 3,280 feet in elevation.	March-May	Fed: None CA: None CNPS: List 1B R-E-D: 3-2-3	Moderate. Appropriate habitat occurs in the chaparral.

Special Status Species	Habitat and Distribution	Flowering Season	Status Designation	Potential for Occurrence
Calochortus palmeri var. palmeri Palmer's Mariposa Lily	Perennial bulbiferous herb. Chaparral, lower montane coniferous forest, meadows, and seeps in mesic soils. From 3,280 to 7,220 feet in elevation.	May - July	Fed: None CA: None CNPS: List 1B R-E-D: 2-2-3	Absent. The site is below the known elevation range for the species.
Calochortus plummerae Plummer's Mariposa Lily	Bulbiferous perennial herb. Occurs in coastal scrub, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland on alluvial or granitic, rocky or sandy soils. From 295 to 5,580 feet in elevation.	May - July	Fed: None CA: None CNPS: List 1B R-E-D: 2-2-3	Moderate. Appropriate habitat occurs in the chaparral.
Calochortus striatus Alkali Mariposa Lily	Perennial bulbiferous herb occurring in chaparral, chenopod and Mojavean desert scrub, and meadows and seeps (alkaline, mesic). From 230 to 5,230 feet in elevation.	April - June	Fed: None CA: None CNPS: List 1B R-E-D: 2-2-2	Moderate. Appropriate habitat occurs in the chaparral.
Camissonia lewisii Lewis's Evening- Primrose	Annual herb. Occurs in coastal bluff scrub, coastal dunes, coastal scrub, cismontane woodland, and valley and foothill grassland on sandy or clay soils. Up to 985 feet in elevation.	March - June	Fed: None CA: None CNPS: List 3 R-E-D: ?-?-2	Absent. The site is above the known elevation range for the species.
Canbya candida Pygmy Poppy	Annual herb. Occurs in Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland on sandy, granitic soils. From 1,970 to 3,940 feet in elevation.	March - June	Fed: None CA: None CNPS: List 4 R-E-D: 1-2-3	Absent. No appropriate habitat on the site.
Castilleja gleasonii Mt. Gleason Indian Paintbrush	Hemiparasitic perennial herb. Occurs in lower montane coniferous forest and in pinyon and juniper woodland on granitic soils. From 3,805 to 7,120 feet in elevation.	May - June	Fed: None CA: Rare CNPS: List 1B R-E-D: 3-2-3	Absent. No appropriate habitat on the site. The site is below the known elevation range for the species.

Special Status Species	Habitat and Distribution	Flowering Season	Status Designation	Potential for Occurrence
Centromadia parryi ssp. australis Southern Tarplant	Annual herb. Occurs in vernal pools, margins of marshes and swamps, and vernally mesic valley and foothill grasslands, sometimes with saltgrass on alkaline soils. Up to 1,400 feet in elevation.	May - November	Fed: None CA: None CNPS: List 1B R-E-D: 3-3-2	Absent. The site is below the known elevation range for the species.
Chorizanthe parryi var. fernandina San Fernando Valley Spineflower	Annual herb. Occurs in coastal scrub on sandy soils. From 10 to 4,000 feet in elevation.	April - June	Fed: CAN CA: END CNPS: List 1B R-E-D: 3-3-3	Absent. No appropriate habitat on the site.
Chorizanthe parryi var. parryi Parry's Spineflower	Annual herb. Chaparral, coastal scrub. In openings, slopes, and flats on dry, sandy or rocky soil. From 130 to 5,595 feet in elevation.	April - June	Fed: None CA: None CNPS: List 3 R-E-D: -2-3	Moderate. Appropriate habitat occurs in the chaparral.
Claytonia lanceolata var. peirsonii Peirson's Spring Beauty	Perennial herb. Occurs in subalpine coniferous forest, upper montane coniferous forest on scree. From 7,005 to 9,005 feet in elevation.	May - June	Fed: None CA: None CNPS: List 1B R-E-D: 3-3-3	Absent. No appropriate habitat on the site. The site is below the known elevation range for the species.
Dodecahema leptoceras Slender-horned Spineflower	Annual herb. Occurs in coastal scrub (alluvial fans), chaparral, and cismontane woodlands on sandy soils. From 660 to 2,500 feet in elevation.	April - June	Fed: END CA: END CNPS: List 1B R-E-D: 3-3-3	Moderate. Appropriate habitat occurs in the chaparral.
Dudleya densiflora San Gabriel Mountains Dudleya	Perennial herb. Occurs in chaparral, coastal scrub, lower montane coniferous forest in crevices and on decomposed granite on cliffs and canyon walls. From 985 to 1,700 feet in elevation.	March - July	Fed: None CA: None CNPS: List 1B R-E-D: 3-3-3	Absent. No appropriate habitat on the site. The site is below the known elevation range for the species.

Special Status Species	Habitat and Distribution	Flowering Season	Status Designation	Potential for Occurrence
Dudleya multicaulis  Many-stemmed  Dudleya	Perennial herb. Occurs in coastal scrub, chaparral, and valley and foothill grassland, usually on clay soils or grassy slopes. Up to 2,590 feet in elevation.	April - July	Fed: None CA: None CNPS: List 1B R-E-D: 1-2-3	Moderate. Appropriate habitat occurs in the chaparral.
Eriogonum kennedyi var. alpigenum Southern Alpine Buckwheat	Perennial herb. Occurs in alpine boulder and rock field, subalpine coniferous forest on granitic, gravelly soils. From 8,530 to 11,480 feet in elevation.	July - September	Fed: None CA: None CNPS: List 1B R-E-D: 2-1-3	Absent. No appropriate habitat on the site. The site is below the known elevation range for the species.
Eriogonum microthecum var. johnstonnii Johnston's Buckwheat	Deciduous shrub. Occurs in subalpine coniferous forest, upper montane coniferous forest on rocky soils. From 7,300 to 9,515 feet in elevation.	July - September	Fed: None CA: None CNPS: List 1B R-E-D: 3-1-3	Absent. No appropriate habitat on the site. The site is below the known elevation range for the species.
Galium grande San Gabriel Bedstraw	Cismontane woodland, chaparral, broadleafed upland forest, lower montane coniferous forest. Micro-habitat of open chaparral and low, open oak forest and rocky slopes. From 1,400 to 4,920 feet in elevation.	January - July	Fed: None CA: None CNPS: List 1B R-E-D: 3-1-3	Moderate. Appropriate habitat occurs in the chaparral.
Helianthus nuttallii ssp. parishii Los Angeles Sunflower	Rhizomatous perennial herb. Occurs in coastal salt and freshwater marshes and swamps. From 15 to 1,640 feet in elevation.	August - October	Fed: None CA: None CNPS: List 1A R-E-D: *	Absent. The site is above the known elevation range for the species.
Horkelia cuneata ssp. puberula mesa horkelia	Perennial herb. Occurs in coastal scrub, chaparral and cismontane woodland on sandy or gravelly soils. From 230 to 2,660 feet in elevation.	February - September	Fed: None CA: None CNPS: List 1B R-E-D: 2-3-3	Moderate. Appropriate habitat occurs in the chaparral.

Special Status Species	Habitat and Distribution	Flowering Season	Status Designation	Potential for Occurrence
Lepidium virginicum var. robinsonii Robinson's Pepper- grass	Annual herb. Occurs in coastal scrub and chaparral on dry soils. Up to 3,100 feet in elevation.	January - July	Fed: None CA: None CNPS: List 1B R-E-D: 3-2-2	Moderate. Appropriate habitat occurs in the chaparral.
Lilium parryi Lemon Lily	Bulbiferous perennial herb. Occurs in upper and lower montane coniferous forest, meadows and seeps, riparian forest. Wet terrain, forested, mountainous, or boggy areas. On mesic soil. From 4,270 to 8,600 feet in elevation.	July - August	Fed: None CA: None CNPS: List 1B R-E-D: 2-2-2	Absent. The site is below the known elevation range for the species.
Linanthus concinnus San Gabriel Linanthus	Annual herb. Occurs in lower and upper montane coniferous forest in rocky soils and on dry slopes. From 5,170 to 9,190 feet in elevation.	April - July	Fed: None CA: None CNPS: List 1B R-E-D: 3-2-3	Absent. No appropriate habitat on the site. The site is below the known elevation range for the species.
Linanthus orcuttii Orcutt's Linanthus	Annual herb occurring in chaparral, lower montane coniferous forest, and in pinyon and juniper woodland, usually in disturbed areas and gravelly openings in vegetation. From 3,000 to 7,040 feet in elevation.	May - June	Fed: None CA: None CNPS: List 1B R-E-D: 2-1-2	Low. Appropriate habitat occurs in the chaparral, but the site is slightly below the known elevation range for the species.
Lupinus peirsonii Peirson's Lupine	Perennial herb. Occurs in Joshua tree "woodland," lower and upper montane coniferous forest, and pinyon and juniper woodland, often on gravelly or rocky soils. From 3,280 to 8,200 feet in elevation.	April - June	Fed: None CA: None CNPS: List 1B R-E-D: 2-1-3	Absent. The site is below the known elevation range for the species.
Malacothamnus davidsonii Davidson's Bush Mallow	Deciduous shrub. Occurs in coastal scrub, cismontane woodland, riparian woodland, and chaparral, often in sandy washes. From 610 to 2,805 feet in elevation.	June - January	Fed: None CA: None CNPS: List 1B R-E-D: 2-2-3	Moderate. Appropriate habitat occurs in the chaparral and riparian forest.

Special Status Species	Habitat and Distribution	Flowering Season	Status Designation	Potential for Occurrence
Lasthenia glabrata ssp. coulteri Coulter's Goldfields	Annual herb. Occurs in coastal salt marshes and swamps, valley and foothill grasslands, playas, sinks, and vernal pools. Up to 4,000 feet in elevation.	February – June	Fed: None CA: None CNPS: List 1B R-E-D: 2-3-2	Absent. No appropriate habitat occurs on the project site.
Monardella macrantha ssp. hallii Hall's Monardella	Rhizomatous perennial herb. Occurs in broadleaved upland forest, chaparral, lower montane coniferous forest, cismontane woodland, and valley and foothill grassland. On dry slopes and ridges in openings within the above communities. Occurs at elevations of 2,395 to 7,200 feet in elevation.	June-August	Fed: None CA: None CNPS: List 1B R-E-D: 2-1-3	Low. Appropriate habitat occurs in the chaparral, but the site is slightly below the known elevation range for the species.
Monardella viridis var. saxicola Green Monardella	Perennial rhizomatous herb. Occurs in broadleaved upland forest, chaparral, and cismontane woodland, from 985 to 3,315 feet in elevation.	July - September	Fed: None CA: None CNPS: List 4 R-E-D: 1-1-3	Moderate. Appropriate habitat occurs in the chaparral.
Navarretia pennisularis Baja Navarretia	Annual herb. Chaparral (openings) and lower montane coniferous forest in mesic soils. From 4,920 to 7,550 feet in elevation.	June - August	Fed: None CA: None CNPS: List 1B R-E-D: 2-2-2	Absent. The site is below the known elevation range for the species.
Opuntia basilaris var. brachyclada Short-joint Beavertail	Stem succulent shrub. Occurs in chaparral, Joshua tree "woodland," mojavean desert scrub, and in pinyon and juniper woodland, often on sandy soils or coarse, granitic loam. From 1,395 to 5,910 feet in elevation.	April - June	Fed: None CA: None CNPS: List 1B R-E-D: 3-2-3	Absent. No appropriate habitat on the site.
Orobanche valida ssp. valida Rock Creek Broomrape	Perennial parasitic herb. Occurs in chaparral, pinyon and juniper woodland on granitic soil. From 4,100 to 6,560 feet in elevation.	May - July	Fed: None CA: None CNPS: List 1B R-E-D: 3-2-3	Absent. The site is below the known elevation range for the species.

Special Status Species	Habitat and Distribution	Flowering Season	Status Designation	Potential for Occurrence
Ribes divaricatum var. parishii Parish's Gooseberry	Deciduous shrub. Occurs in riparian woodland. From 200 to 1,000 feet in elevation.	February – April	Fed: None CA: None CNPS: List 1B R-E-D: 3-3-3	Absent. The site is above the known elevation range for the species.
Swertia neglecta Pine Green-gentian	Perennial herb. Occurs in lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest. From 4,590 to 8,200 feet in elevation.	May - July	Fed: None CA: None CNPS: List 4 R-E-D: 1-1-3	Absent. No appropriate habitat on the site. The site is below the known elevation range for the species.
Thelypteris puberula var. sonorensis Sonoran maiden fern	Perennial rhizomatous herb. Occurs in meadows, seeps and streams. From 165 to 2,000 feet in elevation.	January - September	Fed: None CA: None CNPS: List 1B R-E-D: 2-2-1	Low. Appropriate habitat occurs in the stream area, but the site is slightly below the known elevation range for the species.

General references: Hickman (ed.) 1993; Munz 1974; CNPSEI 2005; CNDDB 2005, USFS 2005

Federal designations: (federal Endangered Species Act, USFWS):

Endangered: Federal-listed, endangered. Threatened: Federal-listed, threatened.

Candidate: Proposed federal listed, endangered. State designations: (California Endangered Species Act, CDFG)

END: State-listed, endangered.
THR: State-listed, threatened.
RARE: State-listed as rare

### Table 3. (cont'd)

# Sensitive Plant Species Potentially Occurring Within The Project Region in Big Tujunga Los Angeles County, California

California Native Plant Society (CNPS) designations:

List 1A: Plants presumed extinct in California.

List 1B: Plants rare and endangered in California and throughout their range.

List 2: Plants rare, threatened, or endangered in California but more common elsewhere in their range.

List 3: Plants about which we need more information; a review list.

List 4: Plants of limited distribution: a watch list.

Definitions of Occurrence Probability.

Occurs: Observed on the site during surveys described here, or recorded onsite by other qualified biologists.

High: Observed in similar habitat in region by qualified biologists, or often occurs in habitat similar to that on the site, and

within the known range of the species.

Moderate: Reported sightings in surrounding region, or site are within the known range of the species and often occur in habitat

similar to that on the site.

Low: Site is within the known range of the species but habitat on the site is rarely used by the species.

Absent: A focused study failed to detect the species, or, no suitable habitat is present, or the site is well outside known

geographic or elevational ranges.

#### CNPS R-E-D Code:

Rarity:

Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction or extirpation is low at this time.

Occurrence confined to several populations or one extended population.

Occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom reported.

Endangerment.

Not endangered.

Endangered in a portion of its range.

Endangered throughout its range.

Distribution:

More or less widespread outside California.

Rare outside California.

Endemic to California (i.e., does not occur outside California

### 4.3.1.1 Listed Plant Species Accounts

Species accounts of the 17 species with a potential to occur on the project site are provided below.

**Greata's Aster** (*Aster greatae*) is a CNPS List 1B species that blooms from June to October. This rhizomatous perennial herb occurs in chaparral, broadleafed upland forest, cismontane woodland, lower montane coniferous forest, and riparian woodland on mesic soils. It is usually found on mesic gravelly granite or limestone soils where disturbance has occurred, from elevations of 985 to 6,595 feet. Appropriate habitat occurs in the chaparral and riparian forest communities. Greata's Aster has a moderate potential to occur within the project area.

**Braunton's Milk-vetch** (*Astragalus brauntonii*) is a federally listed **endangered** species. It is a tall, perennial shrub producing dull lilac flowers from March to July. Braunton's milkvetch occurs in chaparral, coastal sage scrub, closed-cone coniferous forests, and grasslands. It typically occurs along firebreaks or in recently burned or other disturbed areas on carbonate or gravelly, clay soils from 13 to 2,100 feet in elevation. Appropriate habitat is present in the disturbed grassland; however, the project area is slightly above the known elevation range for the species. Braunton's Milk-vetch has a low

potential to occur within the project area. It is not expected to occur within the construction limits based on the existing habitat and site conditions for the proposed project.

**Nevin's Barberry** (*Berberis nevinii*) is a federally- and state-listed as **endangered** plant that typically occurs on steep, north-facing slopes or in low-grade sandy washes on gravelly soils. It is an evergreen shrub flowering from March to April and occurs in chaparral, cismontane woodland, coastal sage scrub, and riparian scrub habitat from 950 to 5,170 feet in elevation. Appropriate habitat for this species occurs in the chaparral and riparian forest communities. Nevin's Barberry has a moderate potential to occur within the project area.

**Slender Mariposa Lily** (*Calochortus clavatus* var. *gracilis*) is a perennial herb from an underground bulb flowering between March to May. It is a CNPS List 1B species. Slender mariposa lily occurs on grassy slopes and shaded foothill canyons in chaparral and coastal sage scrub habitats, and on grassy slopes with other habitats, from 1,180 to 3,280 feet in elevation. Appropriate habitat is present in the chaparral. Slender Mariposa Lily has a moderate potential to occur within the project area.

**Plummer's Mariposa Lily** (*Calochortus plummerae*) is a CNPS 1B listed species. It is a perennial herb from an underground bulb producing tulip-like flowers between May and July. It occurs in chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, and lower montane coniferous forest in sandy granitic, rocky, or alluvial soil from 300 to 5,580 feet in elevation. Appropriate habitat is present in the chaparral community. Plummer's Mariposa Lily has a moderate potential to occur within the project area.

**Alkali Mariposa Lily** (*Calochortus striatus*) is a CNPS List 1B species. It is a perennial bulbiferous herb that occurs in chaparral, chenopod scrub, Mojavean desert scrub, meadows and alkaline, mesic seeps, up to 985 feet in elevation. Appropriate habitat is present in the chaparral. Alkali Mariposa Lily has a moderate potential to occur within the project area.

**Slender-horned Spineflower** (*Dodecahema leptoceras*) is a federally- and state-listed as **endangered** species. This annual herb blooms from April to June and occurs in chaparral, cismontane woodlands, and coastal scrub, particularly alluvial fan sage scrub, on flood deposited terraces and washes at an elevation of approximately 660 to 2,500 feet in elevation. Appropriate habitat for this species occurs in the chaparral community. Slender-horned Spineflower has a moderate potential to occur within the project area.

**Many-stemmed Dudleya** (*Dudleya multicaulis*) is a CNPS 1B listed species. It is a perennial herb blooming from April to July that occurs in chaparral, coastal scrub, and in valley and foothill grasslands. It often occurs in heavy, clay soils or on grassy slopes and rocky outcrops from 50 to 2,590 feet in elevation. Appropriate habitat for this species occurs within the chaparral and grassland communities. Many-stemmed Dudleya has a moderate potential to occur within the project area.

**San Gabriel Bedstraw** (*Gallium grande*) is a CNPS list 1B species. This perennial shrub blooms from January to July, occurring in cismontane and oak woodlands, broad-leafed and lower montane coniferous forest, and chaparral at elevations of 1,400 to 4,920 feet. Appropriate habitat for this species occurs in the chaparral community. San Gabriel Bedstraw has a moderate potential to occur within the project area.

**Mesa Horkelia** (*Horkelia cuneata* ssp. *puberula*) is CNPS 1B list species. This perennial herb blooms from February to September, occurring in chaparral, cismontane woodland, and coastal scrub, often in sandy or gravelly soils at an elevation of approximately 230 to 2,660 feet in elevation. Appropriate habitat for this species occurs in the chaparral community. Mesa Horkelia has a moderate potential to occur within the project area.

**Robinson's Pepper-grass** (*Lepidium virginicum* var. *robinsonii*) is a CNPS 1B listed species. It is an annual herb blooming from January to July that occurs in chaparral and coastal scrub in dry soils up to 3,100 feet in elevation. Appropriate habitat for this species occurs in the chaparral community. Robinson's Pepper-grass has a moderate potential to occur within the project footprint.

**Orcutt's linanthus** (*Linanthus orcuttii*) is a CNPS listed species. This annual herb blooms from May to June, occurring in lower montane coniferous forest, pinyon and juniper woodland, and chaparral in rocky soils and on dry slopes, from 3,000 to 7,040 feet in elevation. Appropriate habitat for this species occurs in the chaparral, but the elevation of site is slightly below the known elevation range for this species. Orcutt's linanthus has a low potential to occur within the project area.

**Davidson's Bush Mallow** (*Malacothamnus davidsonii*) is a CNPS List 1B species and blooms from June to January. This deciduous shrub occurs in coastal scrub (alluvial fans), riparian woodland, chaparral, and cismontane woodland on sandy soils from 590 to 2,805 feet in elevation. Appropriate habitat for this species occurs in the chaparral and riparian forest communities. Davidson's Bush Mallow has a moderate potential to occur within the project site.

**Sonoran maiden fern** (*Thelypteris puberula* var. *sonorensis*) is a CNPS List 2 species blooming from January to September. This perennial herb occurs in meadows, seeps, and streams, from 165 to 2,000 feet in elevation. Appropriate habitat for this species occurs in adjacent to the stream in the riparian community, but the majority of the site lays slightly below the known elevation range for this fern. Sonoran maiden fern has a low potential to occur within the project area.

### 4.3.2 Wildlife

After a thorough literature review and an assessment of the various habitat types within the project and its immediate vicinity, it was determined that 46 sensitive wildlife species occur or have the potential to occur. Thirteen of these species are listed as federal or state endangered or threatened or proposed endangered or threatened. This section provides a summary of those sensitive wildlife species. Table 4 provides a list of the federal- and state-listed endangered, threatened, candidate, and sensitive wildlife species that either occur or have the potential to occur within the proposed project.

Scientific Name	Common Name	Status	Habitat	Comments
CLASS OSTEICHTHYES	BONY FISH			
Catostomus santaanae	Santa Ana Sucker	FT, CSC	Endemic to Los Angeles Basin south coastal streams. Considered to be habitat generalists, but usually prefer sand-rubble-boulder bottoms, clear water, & algae.	Absent. No appropriate habitat is present on the site.
Gasterosteus aculeatus williamsoni	Unarmored Threespine Stickleback	FE, SE	Weedy pools of backwaters, and among emergent vegetation at the edge of small southern California streams. Cool (<24 c), clear water with abundant stream vegetation.	Absent. Species was not detected and is not likely to occur.
Rhinichthys osculus ssp. 3	Santa Ana Speckled Dace	CSC	Endemic to Los Angeles Basin south coastal streams.	Absent. No appropriate habitat is present on the site
CYPRINIDAE	MINNOWS AND CARP			
Gila orcutti	Arroyo Chub	FSC, CSC	Occurs in slow water stream sections with mud or sand bottoms. Often found in intermittent streams.	Present. Appropriate habitat is present on the site and this species has been detected onsite.
CLASS AMPHIBIA	AMPHIBIANS			
SALAMANDRIDAE	NEWTS			
Taricha torosa torosa	Coast Range Newt	CSC	Found in wet forests, oak forests, chaparral, and rolling grasslands.	Low. Some appropriate habitat occurs on the site.

Scientific Name	Common Name	Status	Habitat	Comments
PLETHODONTIDAE	LUNGLESS SALAMANDERS			
Batrachoseps gabriele	San Gabriel Mountains Salamander	FSS	Known only from the San Gabriel Mtns. Found under rocks, wood, and fern fronds in areas with evergreen trees, including oak and conifer, generally between 1,200 and 5,000 feet in elevation. Usually at the base of talus slopes. Most active during winter and early spring.	Low. Some appropriate habitat occurs on the site.
Ensantina eschscholtzi croceater	Yellow-blotched Salamander	CSC, FSS	Found in deciduous and evergreen forest under rotting logs, bark, and rocks. Permanent water may or may not be present. Generally found in the Tehachapi Mountains.	Low. Some appropriate habitat occurs on the site.
RANIDAE	TRUE FROGS			
Rana aurora draytonii	California Red-legged Frog	FT	Dense, shrubby riparian vegetation associated with deep still or slow-moving water. Surface water is required for most or all of the year.	Low. No Primary Constituent Elements for critical habitat and predatory species currently exclude this species.
Rana boylii	Foothill Yellow-legged Frog	CSC, FSS	Inhabits woodland, chaparral, and forest near water, usually near riffles with rocky, sunny banks. Generally below 6,700 feet in elevation. Cobble-sized substrate required for egg laying.	Low. Some appropriate habitat occurs on the site.
Rana muscosa	Mountain Yellow-legged Frog	FE	In southern California, inhabits rocky streams. Open stream and lake edges with a gentle slope up to a depth of 5-8 cm seem to be preferred.	Low. Some appropriate habitat occurs on the site. Not within mapped Critical Habitat (2005)
BUFONIDAE	TRUE TOADS			
Bufo microscaphus californicus	Arroyo Toad	FE, CSC	Inhabits sandy banks adjacent to washes, streams, and arroyos in semiarid parts of the southwest	Low. Some appropriate habitat occurs on the site.

Scientific Name	Common Name	Status	Habitat	Comments
CLASS REPTILIA	REPTILES			
EMYDIDAE	BOX AND WATER TURTLES			
Emys (=Clemmys) marmorata pallida	Southwestern Pond Turtle	FSC, CSC	Inhabits permanent or nearly permanent bodies of water in many habitat types including ponds, marshes, rivers, and streams with suitable basking sites.	Low. Some appropriate habitat occurs on the site.
PHRYNOSOMATIDAE	HORNED LIZARDS			
Phrynosoma coronatum blainvillei	San Diego Horned Lizard	FSC, CSC	Occurs in coastal sage scrub, open chaparral, riparian woodland, annual grassland habitats that support adequate prey species	Low. Some appropriate habitat occurs on the site.
TEIIDAE	WHIPTAIL LIZARDS			
Aspidoscelis hyperythra	Orange Throated Whiptail	FSC, CSC	Inhabits sandy washes, rocky hillsides, and coastal sage scrub that support adequate prey species	Low. Some appropriate habitat occurs on the site.
Aspiodoscelis tigris stejnegeri	Coastal Western Whiptail	FSC	Inhabits grasslands, coastal sage scrub, chaparral, and woodlands that support adequate prey species	Low. Some appropriate habitat occurs on the site.
ANNIELLIDAE	CALIFORNIA LEGLESS LIZARDS			
Anniella pulchra	California Legless Lizard	FSC, CSC, FSS	Common in coastal dune, valley- foothill, chaparral and coastal scrub type habitats.	Low. Some appropriate habitat occurs on the site.
Anniella pulchra pulchra	Silvery Legless Lizard	CSC	Frequents sparse vegetation of beaches, chaparral, pine oakwoodland, and streamside sycamores, cottonwoods, and oaks. Prefer sandy or loose loamy soils with high moisture content.	Low. Some appropriate habitat occurs on the site.

Scientific Name	Common Name	Status	Habitat	Comments
BOIDAE	BOAS			
Charina bottae umbratica	Southern Rubber Boa	ST, FSS	Inhabits a variety of montane habitats, including grassland, chaparral, woodland, and forest, under rocks and bark, usually adjacent to streams or wet meadows. Requires moist soil for burrowing. Feeds on small mammals, birds, and reptiles.	Low. Some appropriate habitat occurs on the site.
Lichanura trivirgata roseofusca	Coastal Rosy Boa	FSS	Inhabits rocky shrublands near the coast.	Absent. No appropriate habitat is present on the site.
COLUBRIDAE	COLUBRID SNAKES			
Diadophis punctatus modestus	San Bernardino Ringneck Snake	FSC, CSC, FSS	Most common in open, relatively rocky areas. Often in somewhat moist microhabitats near intermittent streams. Restricts movements to areas of surface litter or herbaceous vegetation.	Low. Some appropriate habitat occurs on the site.
Lampropeltis zonata parvirubra	San Bernardino Mountain Kingsnake	FSC, FSS	Restricted to the San Bernardino Mtns. of southern CA. Inhabits a variety of habitats, including valley-foothill hardwood, coniferous, chaparral, riparian, and wet meadow.	Low. Some appropriate habitat occurs on the site.
Thamnophis hammondii	Two-striped Garter Snake	CSC, FSS	Highly aquatic. Found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	Low. Some appropriate habitat occurs on the site.

Scientific Name	Common Name	Status	Habitat	Comments
CLASS AVES	BIRDS			
<u>CATHARTIDAE</u>	<u>VULTURES</u>			
Gymnogyps californianus	California Condor	FE SE	Coniferous forests and mountains ranging in open grasslands for foraging	Absent. Re-introduced birds are not known to forage or breed within the proposed project's area of affect.
ACCIPITRIDAE	HAWKS, KITES, HARRIERS, AND EAGLES			
Haliaeetus leucocephalus	Bald Eagle	FT CE	Overwinters in southern California in coniferous forest.	Absent.  No known overwintering roost sites within the project limits or area of affect.
Accipiter gentilis	Northern Goshawk	FSS	Nests in or near coniferous woodlands. Will use old nests while maintaining alternate sites, generally on north slopes near water. Occurs irregularly in southern California during winter. Prey includes birds, ducks, and occasionally mammals as large as hares and rabbits.	Low. Some appropriate habitat occurs on the site.
Buteo swainsoni	Swainson's Hawk	ST, FSS	or cropland contained scattered, large trees or small groves.	Absent. No appropriate habitat is present on the site.
Accipiter cooperi	Cooper's Hawk	CSC	Found in various habitat throughout southern California.	Present. Single observation in habitat downstream of plunge pool.

Scientific Name	Common Name	Status	Habitat	Comments
FALCONIDAE	FALCONS			
Falco peregrinus anatum	American Peregrine Falcon	SE, FSC, FSS	Nests on inaccessible mountain cliffs, prairie escarpments and canyon walls.	Low. Some appropriate habitat occurs on the site.
Falco mexicanus	Prairie Falcon	CSC	Occurs in open desert scrub, grasslands, and open terrain adjacent to cliffs or rocky outcrops for nesting.	Low. Some appropriate habitat occurs on the site.
STRIGIDAE	OWLS			
Athene cunicularia	Burrowing Owl	FSC, CSC	Prefers open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent on small mammal burrows (particularly ground squirrels) for its subterranean nesting.	Absent. No appropriate habitat is present on the site.
Strix occidentalis occidentalis	California Spotted Owl	CSC, FSC, FSS	Associated with oak and oak- conifer habitats, usually with a canopy greater than 40 percent. Often found in shaded canyon, on north-facing slopes, and within approximately 1,000 feet from water.	Low. Some appropriate habitat occurs on the site.
TYRANNIDAE	TYRANT FLYCATCHERS			
Empidonax traillii extimus	Southwestern Willow Flycatcher	FE	Inhabits extensive thickets of low, dense willows on the edge of wet meadows, ponds, or backwaters.	•
VIREONIDAE	VIREOS			
Vireo bellii pusillus	Least Bell's Vireo	FE	Migrant species in southern California that breeds in low- elevation riparian habitats of tall cottonwood-willow woodlands and mulefat scrub.	Moderate Patches of habitat in the vicinity of project area may support this species, but no least Bell's vireos were detected during surveys.



Scientific Name	Common Name	Status	Habitat	Comments
SYLVIIDAE	GNATCATCHERS			
Polioptila californica californica	Coastal California Gnatcatcher	FT, CSC	Occurs in coastal sage scrub vegetation on mesas, arid hillsides, and in washes and nests almost exclusively in California sagebrush	Absent. No appropriate habitat is present on the site.
APODIDAE	SWIFTS			
Cypseloides niger	Black Swift	CSC	Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs.	Absent. No appropriate habitat is present on the site.
CLASS MAMMALIA	MAMMALS			
HETEROMYIDAE	POCKET MICE & KANGAROO RATS			
Perognathus alticolus alticolus	White-eared Pocket Mouse	CSC, FSS	Inhabits ponderosa and Jeffrey pine woodlands, mixed chaparral, and sagebrush communities. Requires loose soil for burrowing. Known primarily from the San Bernardino Mtns.	Low. Some appropriate habitat occurs on the site.
Perognathus alticolus inexpectatus	Tehachapi Pocket Mouse	CSC, FSS	Inhabits arid annual grassland and desert scrub communities. Occasional in fallow grain field and ruderal areas. Forages on open ground and under shrubs.	Low. Some appropriate habitat occurs on the site.
Perognathus longimembris brevinasus	Los Angeles Pocket Mouse	FSC, CSC, FSS	Occurs in lower elevation grasslands and coastal sage communities in the Los Angeles basin. Requires open ground with fine sandy soils. May not dig extensive burrows, hiding under weeds and leaves instead.	Absent. No appropriate habitat is present on the site.
LEPORIDAE	RABBITS AND HARES			
Lepus californicus bennettii	San Diego Black-tailed Jackrabbit	FSC, CSC	Occurs in intermediate canopy stages of shrub habitats and open shrub, along herbaceous and tree edges within coastal sage scrub habitats in Southern California.	Low. Some appropriate habitat occurs on the site.



Scientific Name	Common Name	Status	Habitat	Comments
VESPERTILIONIDAE	MOUSE-EARED BATS			
Antrozous pallidus	Pallid Bat	CSC, FSS	Occurs in grassland, shrublands, woodlands, and forests, requires rocky outcrops, cliffs, and crevices with access to open habitats for foraging.	Low. Some appropriate habitat occurs on the site.
Corynorhinus townsendii townsendii	Townsend's Western Big-eared Bat	FSC, CSC, FSS	Found in all but subalpine and alpine habitats. It is most abundant in mesic habitats. Limited roosting sites in caves and buildings, very disturbance sensitive.	Low. Some appropriate habitat occurs on the site.
Lasiurus blossevillii	Western Red Bat	FSS	Roosts in trees from 2 to 40 feet above the ground. Prefers mixed conifer forest edges with trees forming a closed canopy and open shrub layer for foraging.	Low. Some appropriate habitat occurs on the site.
Lasiurus xanthinus	Western Yellow Bat	CSC	Western yellow bats are associated with dry, thorny vegetation and are found in desert regions of the southwestern United States. They show a particular association with palms and are known to occur in a number of palm oases' but are also believed to be expanding their range with the increased usage of ornamental palms in landscaping	Absent. No appropriate habitat is present on the site.
Nyctinomops macrotis	Big Free-tailed Bat	CSC	Inhabitant of rugged, rocky habitats in arid landscapes. It has been found in a variety of plant associations, including desert shrub, woodlands, and evergreen forests.	Low. Some appropriate habitat occurs on the site.
MURIDAE	MICE, RATS, VOLES			
Onychomys torridus ramona	Southern Grasshopper Mouse	CSC	Alkali desert scrub and desert scrub habitats are preferred, with somewhat lower densities expected in other desert habitats, including succulent shrub, wash, and riparian areas. Also occurs in coastal scrub, mixed chaparral, sagebrush, low sage, and bitterbrush habitats.	Low. Some appropriate habitat occurs on the site.



# Table 5. (cont'd)

# Sensitive Wildlife Species Potentially Occurring Within The Project Region In Big Tujunga Los Angeles County, California

**Common Name** 

Status

Habitat

Comments

Scientific Name		varrie	Common Name	Status	Tiabitat	Comments
MUSTE	LIDAE		BADGERS, WEASELS, SKUNKS, & OTTERS			
Taxidea	taxus		American Badger	CSC	Found in grasslands, deserts, and open marshy areas.	Absent. No appropriate habitat is present on the site.
Status Co	Status Codes			Potential for Occurrence (PFO)		
Federal FE FT FSC State ST	= = =	Federally list Federal Spe State listed;		A = Absent from Site – Species is restricted to habitats that do not occur within the project site.  L = Low Potential for Occurrence – No historical records exits of the species occurring within the project site or its immediate vicinity, and/or the habitats needed to support the species on the site are of poor quality.		
SE	=	State listed;	Endangered	M = Moderate Potential for Occurrence –Either a historical record exist the species within the immediate vicinity of the project site and/or the		
CSC	=	California Sp	pecies of Special Concern	habitat requirements associated with the species occur within the project site		
FSS	=	Forest Servi				
	*	distribution, a critical sta California. Population(s	e biologically rare, very restricted in declining throughout their range, or at ge in their life cycle when residing in s) in California that may be peripheral	or at species within the project site or its immediate vicinity and the habi g in requirements strongly associated with the species occur within the site.		ity and the habitat occur within the project
		are threaten	portion of a taxon's range, but which ed with extirpation within California.	P = Species the time of th	Present – The species was observed in e survey.	n the project area at
		,	, associated with a habitat that is California (e.g., wetlands, riparian, old st).	Forest Service Data Base (C	ce Sensitive Species List and California CNDDB) Condor Peak, Agua Dulce, Ac Mt. Wilson, Pasadena, Burbank, and St	ton, Pacifico Mtn.,

### 4.3.2.1 Sensitive Wildlife Species Accounts

Scientific Name

This section describes the potential adverse affects to the sensitive species, and presents measures to avoid and minimize those affects. The Southern California Mountains and Foothills Assessment have listed Big Tujunga Canyon as an Area of High Ecological Significance (AHES). An AHES is defined as an area that includes critical habitat for rare or vulnerable species, an area of high ecological integrity, or an area with unique ecological associations. Primarily, an AHES is designated where a number of these ecologically important features overlap (Stephenson and Calcarone 1999). Portions of Big Tujunga Creek downstream of the project limits support populations of the Federal listed Santa Ana Sucker (*Catostomus santaanae*,) and Arroyo Toad (*Bufo californicus*,). The project limits support a California Species of Special Concern [SSC]), the Arroyo Chub (*Gila orcutti*).

## Santa Ana Sucker (Catostomus santaannae)

USFWS: Threatened; CDFG: Species of Special Concern

On April 12, 2000 the Santa Ana sucker was listed as a threatened species under the Endangered Species Act of 1973, as amended. A fourth population of Santa Ana sucker in the Santa Clara River is not listed under the Act because the Service had no information available at the time the species was listed to indicate this was a native population. The Santa Ana sucker is a fish native to streams in the Los Angeles Basin in southern California. The Santa Ana sucker is currently restricted to three geographically separate populations in three different stream systems in southern California: (1) the lower and middle Santa Ana River; (2) East, West, and North forks of the San Gabriel River; and (3) the lower Big Tujunga Creek. Much like other members of the sucker family, the Santa Ana sucker has large lips and a small mouth that enables it to 'vacuum' algae and invertebrates from stream beds. Adult Santa Ana suckers average about 6 inches in length and have dark, blotchy backs with silvery colored undersides.

The Santa Ana sucker requires the following habitat components for population growth, feeding, sheltering, breeding, reproduction, and rearing of offspring, defined as Primary Constituent Elements during the designation of critical habitat: (1) A functioning hydrological system that experiences peaks and ebbs in the water volume throughout the year; (2) a mosaic of sand, gravel, cobble, and boulder substrates in a series of riffles, runs, pools and shallow sandy stream margins; (3) water depths greater than 1.18 inches and water bottom velocities of more than 0.098 feet per second; (4) non-turbid conditions or only seasonally turbid conditions; (5) water temperatures less than 86° Fahrenheit; and (6) stream habitat that includes algae, aquatic emergent vegetation, macro invertebrates, and riparian vegetation.

The species has lost about 75 percent of its historic habitat as a result of modifications to streams from diversions, dams, flood control features, and effects of urbanization (Adapted from the document entitled "Questions and Answers Regarding the Final Rule Designating Critical Habitat for the Santa Ana Sucker", Carlsbad Fish and Wildlife Office website).

Critical habitat for this species occurs in the project area; however, based on surveys performed in 2002, it was concluded that the habitat in the project area is of low value and Santa Ana suckers is not expected to occur in the plunge pool below the dam or within one mile downstream of the plunge pool. Although, some of the required Primary Constituent Elements are present in the plunge pool, the amount of flow, its velocity, and hydrological cycle may vary too much in the project area for Santa Ana suckers, as shown by the fact that they are not present (Swift 2005). Big Tujunga Wash has two downstream impediments that prevent upstream migration. These include a boulder and culvert spillway approximately 0.25 miles downstream and a concrete (gunite) section of the wash with a vertical drop just upstream of the overcrossing. These physical features and the high flow velocities prevent this species from moving upstream to the project limits. No SAS have been observed upstream of the project (Swift, USFS). Santa Ana suckers were recently observed 1.5 miles downstream of Big Tujunga Canyon Road Bridge and further downstream to Hansen Dam where many of the constituent elements of critical habitat (water temperature, substrate, and associated plants and animals) are present. Therefore, this species is not likely to be present within the project limits.

### Arroyo Toad (Bufo microscaphus californicus)

USFWS: Endangered; CDFG: Species of Special Concern

The arroyo toad is one of two currently recognized subspecies of the southwestern toad, *Bufo microscaphus*. This species was listed as an Endangered Species by the USFWS effective January 17, 1995 (50 CFR 17). Much of the present knowledge of the species is the result of intensive studies by Dr. Samuel Sweet, Department of Biological Sciences, University of California Santa Barbara (Sweet 1991, 1993). From available data, their preferred breeding habitats are sandy arroyos and river bottoms of inland valleys, especially in areas characterized by the presence of cottonwoods (*Populus fremontii*), sycamores (*Platanus racemosa*), and willows (*Salix* sp.) and occasionally streams bordered by adjacent stands of coast live oak (*Quercus agrifolia*) with considerable leaf litter covering the ground. Quiet, open, shallow pools with sand or gravel bottoms are believed to be necessary for breeding. Suitable upland vegetation is necessary to sustain this species during the non-breeding season to provide foraging habitat, adequate cover and refuge for over-wintering and long-term aestivation during periods of drought. Arroyo toads are typically observed within 1,500 meters of their breeding habitat and less than 25 meters in elevation above the stream channel. Adult female arroyo toads also use upland habitats in late winter and early spring to accumulate body mass in order to reproduce. Clutch size ranges from 2,000 to 10,000 eggs per clutch (Sweet 1991).

Periodic drought, degradation of suitable breeding habitat and a consequent decrease in overall population during the latter part of this century raised concerns about the status of this species. Although the project study area focuses on consideration of potential impacts along Big Tujunga Creek, it is useful to note distributions of arroyo toad throughout its known range. In the San Gabriel Mountains, populations have been documented in and along Little Rock Creek, Arroyo Seco, and Big Tujunga Creek.

In the United States, the northern limit of the historic range for the arroyo toad appears to have been the Cuyama River with populations in most of the larger coastal drainages with the exception of those originating in the Santa Monica Mountains and their eastern foothills. The species' range originally extended southward to the Rio Santo Domingo in northern Baja California (Sweet 1991). When Sweet published his report in 1991, it was believed that the northern extent of the species' range was near Santa Margarita on the Salinas River (Sweet 1991). Recent surveys indicate that the present range may actually be more than 100 miles north of the Santa Margarita locale. Information concerning the presence of the species in between these locations is not currently available.

It should be noted that much of Sweet's work, in particular the latter portion of his studies, was conducted during an extended period of drought (or at least an extended period of very low rainfall within the normal range of variation for southern California). Depending on the interpretation, the duration of the drought was between 5 and 7 years. It is expected that amphibians, especially those of the coastal desert, would be especially prone to experience dramatic population decreases during such periods of drought. A change in broad-scale weather patterns bringing more annual rainfall, particularly from 1991 through 1995, apparently caused an increase in arroyo toad numbers. Consequently, surveys documented in 1996 from the San Luis Rey River indicated increased breeding activity, and is evidence that arroyo toads might follow a boom and bust population trend based on broad-scale weather patterns. Moreover, the 1995 listing of the species as endangered by the USFWS has brought the arroyo toad more attention and consequently more effort in developing information about population size and location.

Recently documented populations of arroyo toads are located above the Big Tujunga Dam in the upper portions of Big Tujunga Creek, and historic locations are located in the lower Big Tujunga creek. Both locations are approximately 10 miles upstream and downstream of the Big Tujunga Dam (Stephenson and Calcarone 1999). Recent habitat evaluations by the U.S. Forest Service do not include the project limits as 'modeled' habitat. Biological field surveys conducted in 2004 within the project area in did not identify potential breeding habitat within Big Tujunga Creek in the project area. The stream limits within and immediately downstream support a high population of exotic predatory species, including bullfrog and crayfish (*Procambarus clarkii*).

### California Red-legged Frog (Rana aurora draytonii)

USFWS: Threatened; CDFG: Species of Special Concern

The southern subspecies of the red-legged frog (*Rana aurora*) the California red-legged was listed by the USFWS as a Threatened species in 1996. Critical habitat for this subspecies was designated in 2001 (50-CFR Part 17). The Primary Constituent Elements that define the critical habitat for this species are aquatic and upland areas where suitable breeding and non-breeding habitat is interspersed throughout the landscape and are interconnected by continuous dispersal habitat. Among the variety of habitats that the California red-legged frogs have been found, the only common factor is association with a permanent water source (USFWS 2001). Breeding is known to occur in various aquatic habitats, including artificial ponds with little or no emergent vegetation, streams, creeks, ponds, marshes, sag ponds, deep pools and backwaters within streams or creeks, dune ponds, lagoons, estuaries, and stock ponds and other artificial impoundments (USFWS 2001). Although some individuals remain at the breeding area year round, California red-legged frogs often disperse from their breeding habitat to utilize various aquatic, riparian, and upland habitats in the summer and can be found within non-breeding stream habitat up to 2.9 km from breeding habitat, and up to 100 m from water in adjacent dense riparian vegetation (USFWS 2001). Although they are typically found within 60 m of water, some individuals may make nocturnal overland excursions through upland habitat during periods of wet weather (USFWS 2001).

This medium-sized frog ranges from Mendocino County to northwestern Baja California along the coastal plains and into the coastal ranges as well as in the Sierra foothills from Tehama County to Tulare County. The largest number of red-legged frog populations are found within Monterey, San Luis Obispo and Santa Barbara counties (USFWS 1996a. in Stephenson and Calcarone 1999). These frogs often exist in small populations (Hayes pers. comm..) and as such are sensitive and subject to local extinctions. Although it is currently recognized as one species with two geographically contiguous subspecies, *aurora* and *draytonii*; recent genetic work on the red-legged frog has shown that the currently available evidence favors recognition of *aurora* and *draytonii* as separate species (Shaffer et al. 2004). This species was once common and widespread throughout southern California. The decline of the California red-legged frog, as well as other western ranids, is probably the result of numerous confounding factors such as habitat alteration, competition with and predation by introduced species (bullfrogs [*Rana catesbieana*] and large fish), acid rain, pathogens and parasites and catastrophic events (severe drought and scouring floods) (Hayes and Jennings 1986) (Hayes, pers. comm..). Currently the only known population south of Los Angeles County exists in Riverside County on the Santa Rosa Plateau.

Historically present in Big Tujunga Creek below the Big Tujunga Dam (Stephenson and Calcarone 1999), recent habitat evaluations by the U.S. Forest Service has concluded that this species is no longer likely to occur in this area. Furthermore, biological field surveys within the project area in 2004 revealed that areas of relatively permanent water (i.e. the plunge pool) are infested with exotic species such as bullfrogs and crayfish. Bullfrogs have contributed to the decline of California red-legged frogs through both predation and inter-specific competition (Hayes and Jennings 1986; Moyle 1973). Furthermore, surveys of the project area have demonstrated that this species, as well as the Primary Constituent Elements that define critical habitat for this species are not present in the project area.

## 4.3.2.2 Mountain Yellow-legged Frog (Rana muscosa)

USFWS: Endangered (Populations in the San Gabriel, San Jacinto, and San Bernardino mountains only); CDFG: Species of Special Concern.

The mountain yellow-legged frog is a medium-sized (2-3 inches snout-vent length) member of the true frog family (Ranidae). In California, is the only frog found in the Sierra highlands, and in southern California, the mountain yellow-legged frog is known to occur along rocky stream courses in the San Gabriel, San Bernardino, and San Jacinto mountains (Stephenson and Calcarone 1999). This species was also known to occur historically on Palomar Mountain in San Diego County. Populations of this species are limited to high-elevation rocky streams in ponderosa pine, montane hardwood-conifer, and montane riparian habitats between 2,000 and 4,000 feet elevation. Breeding typically occurs March through June for populations in the southern California and begins when the high water in streams subsides. It is diurnal, rarely found more than 2-3 leaps from water and best surveyed for on warm, sunny days.

In southern California, populations of the mountain yellow-legged frog have declined precipitously, with the species extirpated from 99 percent of its former range (Jennings and Hayes 1994). The southern California distinct vertebrate population segment of the mountain yellow-legged frog was listed as Endangered in 2002 (USFWS 2002). Primary threats to this species include the increasing spread of nonnative fish and amphibians (i.e. trout and bullfrogs), loss of breeding pools from siltation or declining surface water, and disturbance of individuals and egg masses from recreation and land use activities (Stephenson and Calcarone 1999). The September 13, 2005 USFWS proposed Critical Habitat listing for this species does not include Big Tujunga Wash. The proposed project does not affect any areas included in this listing.

Mountain yellow-legged frog is not expected to occur in the project area. Although this species was historically present in Big Tujunga Creek above the Big Tujunga Dam (Stephenson and Calcarone 1999), no populations have been documented recently in the Big Tujunga watershed. The nearest known populations in the San Gabriel Mountains are found in Devil's Canyon and along Little Rock Creek (Stephenson and Calcarone 1999). Furthermore, biological field surveys within the project area in 2004 revealed that Big Tujunga Creek within the project area is infested with exotic predatory species such as bullfrog and crayfish.

Unarmored Threespine Stickleback (Gasterosteus aculeatus williamsoni)

USFWS: Endangered, CDFG: Endangered, Fully Protected.

The unarmored threespine stickleback is a small, scaleless, freshwater fish that inhabits the slow and quiet waters of streams and rivers. The stickleback depends on clean, clear water with a good diversity of algae and other plants. The unarmored threespine stickleback was listed as an endangered species in 1970 (under the legal precursor to today's Endangered Species Act). It is also a protected species under California law.

Unarmored Threespine Sticklebacks are currently found in Los Angeles, Ventura, San Louis Obispo, and San Diego counties. They inhabit the Santa Clara River drainage, San Antonio Creek, and the San Felipe Creek. Slow-moving streams surrounded by dense vegetation provide an adequate environment for this species. Algal mats, rocks, or debris may provide shelter in open areas. Unarmored threespine sticklebacks prefer clear watered streams with mud or sand substrates.

There are no documented occurrences of Stickleback in the project area. Surveys conducted within the project limits and immediately downstream did not identify this species. The project limits support a high population of invasive, predatory aquatic species that limit native species occurrence in the proposed area of affect.

Bald Eagle (Haliaeetus leucocephalus)

USFWS: Threatened; CDFG: Endangered

One the best known raptor species in North America, the national symbol of the United States was federally listed as Threatened in 1978. The bald eagle population has been steadily increasing nationwide, and in 1999 this species was proposed for delisting from the federal Endangered Species Act. The bald eagle is listed as endangered by CDFG in 1980. The bald eagle is also one of the largest birds in North America with a wingspan of up to eight feet. Females are larger than males and individuals in northern populations tend to be larger that individuals from southern populations. Adults are dark brown with a white head and tail, while younger birds are mostly brown, and mottled with varying amounts of white. Bald eagles acquire their adult plumage at 4 or 5 years of age. Breeding pairs remain together until the death of a member, at which time the surviving member may find a new mate. Bald eagles typically build their large stick nests in the upper canopy of one of the tallest trees in their extensive territory. The adults may repair a previously used nest, increasing its size over time, or they may build a new nest in their territory. In many cases, the territory of a pair of eagles may include several nests in addition to the one they used most recently (CDFG 2001).

Found throughout California, breeding typically occurs in northern California, extending as far south as the Los Padres National Forest. In southern California, the bald eagle primarily occurs as a winter visitor, and is often observed near large bodies of water such as reservoirs where they feed on fish, waterfowl, and opportunistically on carrion (CDFG 2001). The largest wintering population in southern California is at Big Bear Lake in the San Bernardino Mountains, where twenty to thirty bald eagles have been known to congregate (Stephenson and Calcarone 1999). Since no natural lakes exist in southern California, reservoir development in the past several years has been beneficial to bald eagles and has actually resulted in the net increase in the population above projected natural levels in the region.

Bald eagles are known to occur in the Angeles National Forest and San Gabriel Mountain region as winter visitors. Known overwintering sites are not located within the project area. The project is not expected to affect this species.

Coastal California Gnatcatcher (Polioptila californica californica)

USFWS: Threatened; CDFG: Species of Special Concern

Coastal California gnatcatchers are small insectivorous birds that often give a cat-like "mew" call. This species is a non-migratory resident found in coastal sage scrub habitat. The United States coastal California gnatcatcher population is estimated between 1,800 and 2,500 pairs with 1,000-1,500 pairs remaining in San Diego County (Atwood 1992). The primary cause of this species' decline is the cumulative loss of coastal sage scrub vegetation to urban and agricultural development. Little of this species' habitat is formally protected or managed. This species is probably extirpated from Ventura and San Bernardino Counties and is declining proportionately with the continued loss of coastal sage scrub habitat in the four remaining southern California counties located within the coastal plain. Initial studies suggest that the coastal California gnatcatcher may be highly sensitive to the effects of habitat fragmentation and development activity (Atwood 1990, ERCE 1990, Ogden unpublished data). The territory size requirements of the gnatcatcher vary with habitat quality. Documented home ranges have varied from 6 to 45 acres in San Diego County (RECON 1987, ERCE 1990a, ERCE unpublished data). Studies of the species' habitat preferences in San Diego County indicate that California sagebrush (Artemisia californica) and flat-topped buckwheat (Eriogonum fasciculatum) are the primary plants used by coastal California gnatcatchers when foraging for insects (RECON 1987, ERCE 1990b, Ogden unpublished data). The USFWS has estimated that coastal sage scrub habitat has been reduced by 70 to 90 percent of its historical extent (USFWS 1991) and little of what remains is protected in natural open space.

Coastal California gnatcatchers are not expected to occur in the project area, primarily due to the lack of suitable coastal sage scrub habitat. The habitat within the project area is primarily chaparral, with some small areas of successional scrub, likely created by fire or other disturbance. The nearest known coastal California gnatcatcher locations are found in the lower Big Tujunga Creek region near Hansen Dam.

Least Bell's Vireo (Vireo bellii pusillus)

USFWS: Endangered; CDFG: Endangered

Least Bells' vireos are small, gray, foliage-gleaning passerines with a cylindrical, slightly hooked bill. Historically, this subspecies of Bell's vireo was a common summer visitor to riparian habitat throughout much of California. Currently, least Bell's vireo is found only in riparian woodlands in southern California, with the majority of breeding pairs in San Diego, Santa Barbara, and Riverside Counties. The least Bell's vireo's decline is due to loss, degradation, and fragmentation of riparian habitats within its range, combined with brood parasitism by the brown-headed cowbird.

Least Bell's vireo is restricted to riparian woodland and is most frequent in areas that combine an understory of dense young willows or mulefat with a canopy of tall willows. Because least Bell's vireos build their nests in dense shrubbery 3 to 4 feet above the ground (Salata 1984), they require young successional riparian habitat or

older habitat with a dense understory. Therefore, riparian plant succession is an important factor maintaining least Bell's vireo habitat. Nests are also often placed along internal or external edges of riparian thickets (USFWS 1986).

The USFWS suitable habitat criteria for least Bell's vireo was observed, which requires the presence of all four of the following characteristics to be considered suitable for this species: 1) woody riparian vegetation present; 2) patch size is at least 0.5 acres; 3) understory less than 1m and/or mid-story (1-4 meters) must meet minimum vegetation cover values; and 4) dense clumps of woody vegetation are present (USFWS pers. Comm.). USFWS Protocol surveys were conducted for least Bell's vireo in the spring and summer of 2000 and 2004. During the 2000 surveys, habitat for this species was considered marginal within the project area, and the riparian forest downstream of the plunge pool was not as well developed as it was in 2004. Patches of habitat in the vicinity of project area may support this species, but no least Bell's vireos were detected during these surveys. There have been sporadic sightings in drainages in the Angeles National Forest including Big Tujunga Creek, breeding least Bell's vireo have not been recently observed in this region (Stephenson and Calcarone 1999). Potential nest parasites of least bell's vireo nests, brown-headed cowbirds (*Molothrus ater*) were detected during several of the protocol surveys within the project area. The area is not occupied and the project is not expected to affect this species.

Willow Flycatcher / Southwestern Willow Flycatcher (Empidonax traillii / E. t. extimus)

USFWS: Endangered (E. t. extimus only); CDFG: Endangered (all subspecies)

All subspecies of the willow flycatcher were listed as Endangered by the CDFG in 1991 and the southwestern subspecies (*extimus*) was listed by the USFWS as Endangered in 1995. The willow flycatcher is a neotropical migrant belonging to the flycatcher genus *Empidonax*. This relatively small passerine's coloration is overall greenish or brownish gray above, with a white throat that contrasts with a pale olive breast. The belly is pale yellow, and two white wing bars are visible. The eye ring is faint or absent.

The southwestern willow flycatcher is a summer breeding resident in riparian habitats in southern California, southern Nevada, southern Utah, Arizona, New Mexico, western Texas, and southwestern Colorado (USFWS 1995). It is most commonly found in riparian woodlands of willow (*Salix* spp.), with a well-developed herbaceous understory and the nearby presence of flowing or standing water, or minimally, soils that have periodically held water prior to the breeding season. In general, the riparian habitat of this species tends to be rare, isolated, small and/or linear patches, separated by vast expanses of arid lands. The southwestern willow flycatcher was listed as endangered by the USFWS because of "extensive loss of riparian breeding habitat, brood parasitism by the brown-headed cowbird, and lack of adequate protective regulations" (USFWS 1995a). The number of southwestern willow flycatchers in southern California was estimated to be less than 80 pairs in the early 1980's (Unitt 1984).

The USFWS suitable habitat criteria for southwestern willow flycatcher was observed which, requires the presence of all three (3) of the following characteristics to be considered suitable for this species: 1) presence of surface water, saturated soil or obligate/facultative herbaceous wetland plants during early summer months; 2) woody riparian vegetation is present and covers a minimum aerial extent of 20

percent over a 0.2 hectre section of floodplain or adjacent stream; and 3) dense clumps or stands of woody vegetation are present. Two willow flycatchers were detected on June 11, 2004 approximately 40 meters upstream of the low flow crossing below the plunge pool. The birds were observed for approximately 40 minutes during which they were heard giving the "fitz-bew" and "brrtt" calls and moved through the general area. One bird "tail chased" the other but the interaction did not seem very aggressive. A male brown-headed cowbird was observed in the immediate area while the willow flycatchers were being observed, and the birds apparently reacted to it by going silent at times. Because willow flycatchers were not detected during three follow-up surveys on June 22, July 2 and 13, 2004, it is therefore likely that these willow flycatchers were migrants passing through the region. The nearest known location of southwestern willow flycatchers exists approximately 10 miles north of this location in Soledad Canyon (Stephenson and Calcarone 1999). Another known southwestern willow flycatcher location is found in San Francisquito Canyon approximately 25 miles east-northeast of the project area. Although unconfirmed, it is possible that the willow flycatchers observed within the project area were using the riparian habitat as a migratory stopover on their way to these or other breeding areas north of the project area. It is also possible that the willow flycatchers detected in the project area were one of the other possible subspecies (i.e. *brewsteri*) that pass through this region to breed farther north.

The majority of the riparian habitat along Big Tujunga Creek is too narrow and lacks suitable structure for breeding willow flycatchers. The only habitat that shows suitable structure is located between the plunge pool and the road crossing. Young alders mixed with periodic willows dominate the area. This area is approximately 300 meters long and between 60 and 30 meters wide. The total area of the patch is approximately 1.5 hectares. The areas downstream of this are narrower and are dominated by tall mature cottonwoods with little or no middle or understory. Potential nest parasites of willow flycatcher nests, brown-headed cowbirds were detected during several of the protocol surveys within the project area. The area is not occupied and the project is not expected to affect this species.

### California Condor (Gymnogyps californianus)

USFWS: Endangered; CDFG:

At the time of the arrival of pioneers, the condor ranged along the pacific coast from British Columbia south through Baja California, Mexico. By 1940 the range had been reduced to the coastal mountains of southern California with nesting occurring primarily in the rugged, chaparral-covered mountains, and foraging in the foothills and grasslands of the San Joaquin Valley. Today condors are being reintroduced into the mountains of southern California north of the Los Angeles basin, in the Big Sur vicinity of the central California coast, and near the Grand Canyon in Arizona.

California condors require large areas of remote country for foraging, roosting, and nesting. Condors roost on large, trees or snags, or on isolated rocky outcrops and cliffs. Nests are placed in shallow caves and rock crevices on cliffs where there is minimal disturbance. Foraging habitat includes open grasslands and oak savanna foothills that support populations of large mammals such as deer and cattle. Condors may fly 150 miles a day in search of food.

The project site does not support habitat that is suitable for the condor. The proposed project will not impact condor foraging or breeding.

# 4.3.3 California Species of Special Concern (SSC)

According to the California Department of Fish and Game, "SSC status applies to animals not listed under the federal Endangered Species Act or the California Endangered Species Act, but which nonetheless 1) are declining at a rate that could result in listing, or 2) historically occurred in low numbers and known threat to their persistence currently exist." The status "is intended to focus attention on the species to help avert the need for costly listing under the federal and State endangered species laws and cumbersome recovery efforts that might ultimately be required." (CDFG 2003)

## 4.3.3.1 Arroyo Chub

#### Gila ocutti

CDFG: Species of Special Concern

The arroyo chub is a small fish with a chunky body, fairly large eyes, and a small mouth. This species can reach lengths of 120 mm SL, but typical adult lengths are 70-100 mm. Males can be distinguished from females by their larger fins and, when breeding, by the prominent patch of tubercles on the upper surface of the pectoral fins (Tres 1992). Body color is silver or grey to olive-green dorsally, white ventrally, and there usually is a dull grey lateral band (Moyle 1976).

This species is native to the Los Angeles, San Gabriel, Santa Ana, Santa Margarita, and San Luis Rey rivers and Malibu and San Juan creeks (Moyle et al. 1989). In San Diego County it has been reported from Guejito Valley (PSBS unpublished data). They have been introduced into a number of river systems and coastal streams (e.g., Santa Maria, Santa Ynez, Cuyama, and Mojave rivers and Malibu, Arroyo Grande, and Chorro creeks). The introduced population in Chorro Creek is the northern limit of the arroyo chub's distribution. The arroyo chub is found in slow moving streams with sand or mud substrates (Moyle et al. 1989). They breed in pools from March to April where eggs are broadcast over beds of aquatic vegetation. Arroyo chubs hybridize with California roach (*Lavinia symmetricus*) and Mojave tui chub (*Gila bicolor mohavensis*), and thus introductions of these species into arroyo chub habitat can be detrimental to the genetic integrity of arroyo chub populations. Arroyo chub also suffer from competition and predation from exotic species and habitat degradation. This species was detected in the plunge pool at Big Tujunga Dam (Swift 2002, 2005).

Direct and indirect affects to this species will be mitigated to less than significant. The project is not expected to significantly adversely affect this species.

### 4.3.3.2 Cooper's Hawk

### Accipiter cooperi

CDFG: Species of Special Concern (breeding)

Audubon Society: Blue List

Cooper's hawk, a year-round resident in San Diego County, nests primarily in oak and eucalyptus woodlands but occasionally in willows. Initially considered a declining species and currently listed as a CDFG SSC, Cooper's hawk is successfully adapting to the urban environment. Potential reasons for this

urban adaptation is the proliferation of eucalyptus trees, which provides nesting and foraging habitat, and the increased availability of prey species thriving in that urban environment (Unitt and Perretta, 2001). This species breeds from late March through June and nests primarily in oak woodlands and occasionally in willows or eucalyptus. Outside of the breeding season, it disperses widely from southern Canada to northern Mexico.

A solitary Cooper's hawk was observed foraging along the slopes near the north water tank during biological surveys in 2004. This individual may be roosting in the oak woodlands found in the canyons and ravines adjacent to Big Tujunga Creek.

#### 4.3.3.3 Yellow warbler

### Dendroica petechia

CDFG: Species of Special Concern

The yellow warbler belongs to the wood warbler taxonomic group and is related to the common yellowthroat and yellow-breasted chat. In North America, this summer visitor has the most widespread breeding range of any of the wood warblers. However, in the southwest, the yellow warbler's range is a restricted to the dwindling riparian corridors where it nests in mature riparian woodland. Like the least Bell's vireo, it is a frequent victim of brood-parasitism by the brown-headed cowbird. Although among wood warblers the males typically sing, a song by the female yellow warbler has been well documented (Dunn and Garret, 1997). In San Diego County, it is uncommon and localized as a breeding species, but is still common and widespread as a migrant. The presence of yellow warbler is considered indicative of good quality riparian habitat.

During riparian bird surveys in spring 2004, as many as eleven yellow warblers were detected in the riparian habitat from the dam to the Big Tujunga Canyon Road Bridge, approximately one mile downstream. Evidence that this species was breeding in the area was also observed, as at least five yellow warbler territories were established along the length of the riparian habitat in the taller, thicker cottonwood/willow/alder patches.

### 4.3.4 Other Rare Species

#### 4.3.4.1 Lawrence's Goldfinch

### Carduelis lawrencei

USFWS: Federal Species of Concern, Bird of Conservation Concern

Audubon: Watch List

The Lawrence's goldfinch has gray body plumage, yellow wing markings, and a yellow patch on the center of the breast, which distinguished this bird from its close relatives, lesser and American goldfinches. The male Lawrence's Goldfinch has a black face, forehead, and chin, and broad yellow wing bars. The female is similar to the male but duller overall, with an entirely gray head and face, and subtle yellow and gray wing bars.

Endemic to the arid woodlands of California and northern Baja California, the distribution of Lawrence's goldfinch is highly erratic throughout its breeding range; where the species is found in considerable numbers one year, it may be completely absent the next. Its seasonal movements are also quite variable and poorly

understood. Because of these erratic movements, it is difficult to estimate precisely the densities, dynamics, and gross numbers of populations. Breeding Bird Survey data between 1966 and 1993 show a downward but inconclusive trend in overall population size.

Lawrence's Goldfinches typically nest in arid, open woodlands near chaparral, weed fields, and small bodies of water. Breeding generally occurs between mid-April and late July. The species feeds mostly on seeds of annual plants, with a strong preference for fiddlenecks (*Amsinckia* spp.) in its breeding range; in winter, its diet varies by region. These birds generally travel in pairs or flocks. Much of the breeding range of this species is under pressure from the rising human population and accompanying development. Especially given its relatively small overall population size, habitat loss from such encroachment may put the species at some risk.

Based on visual observations and behavioral assessment, Lawrence's goldfinch is assumed to breed within or adjacent to the project limits in the riparian habitat. Earlier in the season no individuals were detected during the avian surveys, but during later surveys, a few individuals in small family groups were present near the road crossing. Then late in the season there were large flocks both at the road crossing and farther down stream. Over fifty individuals were seen on July 13, 2004; these individuals almost certainly bred in the surrounding area and then came down into the riparian area as the temperatures got hotter and the surrounding habitat dried out.

### Wildlife

The project has the potential to affect resident and migratory wildlife. An insignificant amount of native habitat will be removed. Vegetation clearing has the potential to affect nesting birds that use ground and shrubs for nest locations and foraging habitat.

# 4.4 Habitat Suitable To Support Sensitive Species

Riparian habitat suitable to support sensitive or protected bird species is present within and adjacent to the project limits. The riparian habitat is subject to periodic flooding that has limited the maturation of native tree species. The canopy and understory have been affected by recent storm events with density and structure being reduced as a result. Without additional storm events the habitat can be expected to mature and provide more optimum nesting habitat for sensitive species. This, however, is not likely given the historic seasonal flows.

The aquatic habitat is unlikely to support protected species. Invasive predatory species populate the habitat and minimize the potential for native species to successfully breed. Arroyo Chub is present and tends to occupy deeper water within the plunge pool.

### 4.5 POTENTIAL ADVERSE EFFECTS ON SENSITIVE SPECIES

### **Plants**

# Summary of Potential Adverse Effects to Sensitive Plant Species

As discussed above, the proposed project is unlikely to adversely affect sensitive plants.

## Wildlife

# Summary of Potential Adverse Effects to Sensitive Wildlife Species

The project is not expected to directly or indirectly affect any federal or state protected species with the implementation of mitigation measures. The project may directly and indirectly affect Arroyo Chub, a state sensitive species. The construction action will affect occupied habitat within the plunge pool. These impacts are not expected to adversely affect the species or result in a change of status for state or federal protection

# 5.0 CUMULATIVE ADVERSE EFFECTS

Cumulative effects as defined by the ESA are those effects of future state or private activities that are reasonably certain to occur within the proposed project area (ESA, Section 402.14 (g)(4)).

The Big Tujunga Dam Seismic Upgrade project could contribute cumulative effects to sensitive plant species in the area by introducing or promoting noxious weed encroachment.

Otherwise, as there are no known planned projects within the immediate area that when considered along with this project would create cumulative impacts to the environment. Due to the nature of the proposed project it is not expected that the proposed action will result in any additional adverse cumulative effects to the surrounding environment.

# 6.0 MITIGATION MEASURES

See Mitigation Table located in Appendix B of this Document



# 7.0 Preparation of the Mitigated Negative Declaration

URS Corporation (Offices: Santa Ana, San Diego):

Ken McDonald, Botanist

Thomas Herzog, Sr. Biologist

Theresa Miller, Biologist

Patrick Mock, Ph.D., Sr. Biologist

Kathryn (Kay) Pratt, Sr. Projects Planner

# 8.0 REFERENCES

- California Department of Fish and Game (CDFG). 2005a. Website located at http://www.dfg.ca.gov/hcpb/species/t\_e\_spp/teamphib/teamphiba.shtml
- —. 2005b. Rarefind 3, a program created by the California Department of Fish and Game, allowing access to the California Natural Diversity Database (CNDDB).
- Dale, Nancy 2000. Flowering Plant: The Santa Monica Mountains, Coastal & Chaparral Regions of Southern California. California Native Plant Society, Sacramento, CA.
- Hickman, James C. 1993 *The Jepson Manual: Higher Plants of California*. University of California Press, Berkeley, California.
- Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. State of California, The Resources Agency, Department of Fish and Game. October.
- Ingles, L. G. 1965. *Mammals of the Pacific States-California, Oregon, Washington*. Stanford University Press. 663 p.
- Lanner, Ronald M. 1999. Conifers of California. Cachuma Press, Los Olivos, CA.
- McAuley, Milt 1985. Wildflowers of the Santa Monica Mountains. Canyon Publishing Company, Canoga Park, CA.
- Migratory Bird Treaty Act of 1918 (16 U.S.C. 704-712; Ch. 128; July 13, 1918; 40 Stat. 755).
- Munz, Philip A. 1974 A Flora of Southern California. University of California Press, Berkeley, California.
- Pavlik, Bruce et al. 1991. Oaks of California. Cachuma Press, Los Olivos, CA.
- Peterson, Roger T. 1990. Western Birds Houghton Mifflin Company, New York, New York
- Sawyer, J. and T. Keeler-Wolf. 1995. *A Manual of California Vegetation*. California Native Plant Society, Sacramento, CA.
- Stebbins, Robert C. 2003. Western Reptiles and Amphibians, third edition. Houghton Mifflin Company, New York, New York
- Swift, Camm. 2002. Focused Aquatic Species Survey for the Big Tujunga Dam Plunge Pool. Los Angeles County Department of Public Works. Unpublished.
- U.S. Fish and Wildlife Service (USFWS). 2004a. Sacramento Office, Endangered Species
- Zeiner, C. David, William F. Laudenslayer Jr., and Kenneth E. Mayer. 1988. California's Wildlife Volume I: Amphibians and Reptiles. California Department of Fish and Game. Sacramento, California.

URS

# 9.0 ORGANIZATIONS AND PERSONS CONSULTED

Lead Agency

Los Angeles County

Department of Public Works

Mr. Sterling Klippel

Persons and Agencies Contacted

California Department of Fish and Game

Ms. Betty Courtney

US Fish and Wildlife Service Mr. Jesse Bennett

Los Angeles Regional Water Quality Control Board Mr. Jason Lambert

Mr. Kwang Lee

Army Corps of Engineers Ms. Priya

Finnemore

Federal Emergency Management Agency Ms. Dorset Hughes

United States Department of Agriculture Forest Service, Angeles National Forest Mr. Mike McIntyre

Mr. Bill Brown Ms. Leslie Welch

## Appendix A Focused Biological Survey Report and Archeological Survey Report

#### URS

August 15, 2000

FEMA
Attn: Mr. Dorset Hughes
Parsons East Annex, 3<sup>rd</sup> Floor
75 N. Fair Oaks Avenue
Pasadena, CA 91103

RE: Big Tujunga Dam - Focused Presence/Absence Surveys for Least Bell's Vireo and Willow Flycatcher.

Dear Mr. Hughes:

This letter documents the results of a least bell's vireo (Vireo bellii pusilus) and willow flycatcher (Empidonax traillii extimus) presence/absence survey performed at Big Tujunga Dam, located in Los Angeles County, California. This survey was completed in accordance to U.S. Fish and Wildlife Service protocol.

The surveyed area is located directly west of the Big Tujunga Dam (Section 1, Township 2N, Range 13W, in Los Angeles County). URS biologists Heather Green, Brian Lohstroh, and Phillip Richards performed seven site visits during the period of June 1 through July 31.

An area of riparian habitat approximately 2000 feet long and 100 feet wide, below the base of the dam, was surveyed. This habitat was determined to be marginal habitat. Surveys were conducted during morning hours, when bird vocalizations are most frequent. Animals were identified by vocalizations, or direct observations, with the aid of binoculars. Survey date and time, and weather conditions, are provided in Table 1. Least Bell's Vireo or Willow Flycatcher were not detected on any of these dates.

URS botanist Jim Rocks performed a survey of vegetation at the survey site on 6/1/00. Riparian vegetation forms a thin, sparse thicket along the streambed area, extending from the base of the dam. This vegetation is dominated by willow (Salix sp.), cattail (Typha latifolia), and mulefat (Baccharis salicifolia). A floral species list is enclosed. A list of wildlife species detected is also enclosed.

Several brown-headed cowbirds (*Molothrus ater*) were noted in the survey area on several occasions. Individuals were observed approximately 500 feet below the dam, to the west.

URS Corporation 9665 Chesapeake Drive, Suite 201 San Diego, CA 92123-1383 Tel: 858.541.0833 Fax: 858.541.0890 August 15, 2000 Mr. Dorset Hughes

No least bell's vireo or willow flycatcher are expected to be resident in the survey area due to the presence of marginal habitat.

Please contact me at (858) 541-0833 if you have any questions or require further assistance.

Sincerely,

URS DAMES & MOORE, INC.

Patrick Mock, Ph Senior Biologist

Enclosures: Table 1 - Survey Dates and Conditions

Figure 1 - Site Location Map

Figure 2 - Detailed Survey Location Map

Floral and Faunal Species Lists

Site Photos

Focused surveys for least Bell's vireo (Vireo bellii pusilus) and southwestern willow flycatcher (Empidonax traillii extimus) were conducted by Heather Green, Brian Lohstroh, and Phillip Richards. All willow riparian habitat on the site was surveyed during morning hours. Details of each survey are listed below.

Date	Time	Temp	Sky	Wind	Survey Personnel
6/1/00	6:30-10:45	75-80°F	Sunny	0-2 mph	Brian Lohstroh
6/21/00	7:00-10:00	75-80°F	Sunny	0-3 mph	Brian Lohstroh, Heather Green
6/30/00	6:00-8:00	75-80°F	Sunny	0-2 mph	Heather Green
7/7/00	7:00-8:45	70-75°F	Sunny	0-2 mph	Heather Green
7/14/00	6:30-8:30	75-80°F	Sunny	0-2 mph	Heather Green
7/21/00	6:30-9:00	75-80°F	Sunny	0-2 mph	Heather Green, Phillip Richards
7/28/00	6:30-9:00	80-85°F	Sunny	5 mph	Heather Green, Phillip Richards

#### Big Tujunga Dam Wildlife Species List

#### **VERTEBRATES**

#### **BIRDS\*\***

Scientific Name

Common Name

**Order Ciconiiformes** 

Herons, Storks, Ibises, and Relatives

Family Ardeidae

Ardea herodias Butorides striatus

Great Blue Heron Green Heron

Order Anseriformes

Screamers, Ducks, and Relatives

Family Anatidae

Anas platyrhynchos

Mallard

**Order Falconiformes** 

Vultures, Hawks, and Falcons

Family Accipitridae

Buteo jamaicensis

Red-tailed Hawk

Order Galliformes

Megapodes, Curassows, Pheasants,

and Relatives

Family Phasianidae

Callipepla californica

California Quail

Order Columbiformes

Pigeons and Doves

Family Columbidae

Columba livia Zenaida macroura Rock Dove Mourning Dove

Order Apodiformes

Swifts and Hummingbirds

Family Apodidae

Aeronautes saxatalis

White-throated Swift

Family Trochilidae

Calypte anna Calypte costae Anna's Hummingbird Costa's Hummingbird

#### **Order Piciformes**

#### Woodpeckers and Relatives

Family Picidae

Picoides nuttallii Colaptes auratus Nuttall's Woodpecker Northern Flicker

**Order Passeriformes** 

Perching Birds

Family Tyrannidae

Contopus sordidulus Empidonax difficilis Sayornis nigricans Myiarchus cinerascens Tyrannus verticalis

Western Wood-pewee Pacific Slope Flycatcher Black Phoebe Ash-throated Flycatcher Western Kingbird

Family Hirundinidae

Tachycineta thalassina Stelgidopteryx serripennis Hirundo pyrrhonota Violet-green Swallow Northern Rough-winged Swallow Cliff Swallow

Family Corvidae

Aphelocoma californica Corvus corax Western Scrub Jay Common Raven

Family Troglodytidae

Salpinctes obsoletus Catherpes mexicanus Troglodytes aedon Rock Wren Canyon Wren House Wren

Family Muscicapidae

Sialia mexicana Turdus migratorius Chamaea fasciata Western Bluebird American Robin Wrentit

Family Ptilogonatidae

Phainopepla nitens

Phainopepla

Family Emberizidae

Dendroica petechia
Piranga ludoviciana
Pheucticus melanocephalus
Pipilo erythrophthalmus
Pipilo crissalis
Melospiza melodia
Agelaius phoeniceus
Molothrus ater

Yellow Warbler
Western Tanager
Black-headed Grosbeak
Rufous-sided Towhee
California Towhee
Song Sparrow
Red-winged Blackbird
Brown-headed Cowbird

Icterus galbula Carpodacus mexicanus Carduelis psaltria Carduelis lawrencei

Northern Oriole House Finch Lesser Goldfinch Lawrence's Goldfinch

Family Passeridae

Passer domesticus

House Sparrow

#### **REPTILES AND AMPHIBIANS\*\***

Order Salientia

Frogs and Toads

Family Ranidae

Rana catesbeiana

Bullfrog

Order Squamata

Lizards and Snakes

Family Iguanidae

Sceloporus occidentalis Uta stansburiana

Western Fence Lizard Side-blotched Lizard

Family Teiidae

Cnemidophorus tigris

Western Whiptail

Family Colubridae

Masticophis lateralis

Striped Racer

<sup>\*\*</sup> Amphibian, reptile, and bird nomenclature follows Laudenslayer et. al. 1991.

#### Big Tujunga Dam Floral Species List

#### Species<sup>1</sup>

#### **ANGIOSPERMS (FLOWERING PLANTS)**

#### MONOCOTYLEDONEAE

**CYPERACEAE** – Sedge Family

Carex sp. – sedge Cyperus ssp.

Eleocharis sp. – spikerush

LILIACEAE - Lily Family

Yucca whipplei ssp. whipplei - our lord's candle

**POACEAE** - Grass Family

- \*Bromus diandrus ripgut brome
- \*Lolium multiflorum wild rye
- \*Polypogon monspeliensis rabbit's foot grass

TYPHACEAE - Cattail Family

Typha latifolia - cattail

#### **DICOTYLEDONEAE**

**ASTERACEAE** - Sunflower Family

Ageratina adenophora

Ambrosia psilostachya – western ragweed

Artemisia douglasiana - mugwort

Baccharis salicifolia - mulefat

Cirsium sp.

Gnaphalium sp.

- \*Lactuca serriola prickly lettuce
- \*Sonchus asper prickly sow thistle

Xanthium strumarium - cocklebur

#### **BETULACEAE** – Birch Family

Alnus ssp.

#### **BRASSICACEAE** - Mustard Family

- \*Brassica nigra black mustard
- \*Brassica mad ssp. rubens

Rorippa nasturtium-aquaticum - water cress

#### CHENOPODIACEAE - Goosefoot Family

\*Chenopodium botrys

FABACEAE - Pea Family

\*Melilotus alba - white sweetclover

**LAMIACEAE** - Mint Family

Stachys sp. - hedgenettle

**ONAGRACEAE** – Evening Primrose Family

Epilobium ciliatum ssp. ciliatum - fireweed

Oenothera elata ssp. hirsutissima - evening primrose

PLANTAGINACEAE - Plantain Family

Plantago major

SALICACEAE - Willow Family

Populus fremontii ssp. fremontii - alamo or fremont cottonwood

Salix gooddingii — goodding's black willow Salix lasiandra

SCROPHULARIACEAE - Figwort Family

Mimulus aurantiacus - red bush monkey flower

Mimulus guttatus - seep monkey flower

Veronica arvensis - speedwell

**URTICACEAE** – Nettle Family

Urtica dioica ssp. holosericea - stinging nettle

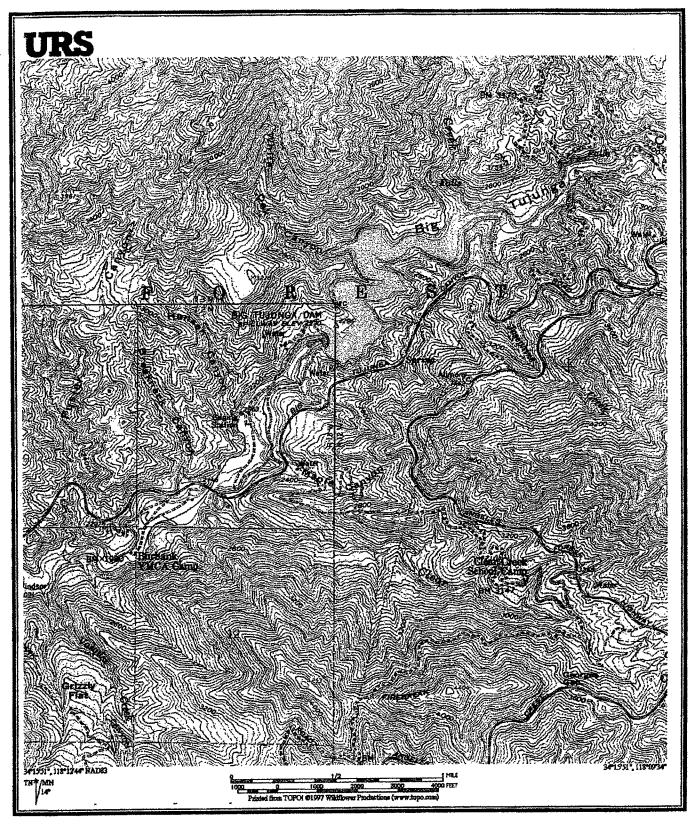
#### REFERENCES

Beauchamp, R.M. 1986. A flora of San Diego County. Sweetwater River Press. 241 pp.

Hickman, J. C. 1993. The Jepson manual: higher plants of California. University of California Press, Berkeley, California. 1400 pp.

<sup>&</sup>lt;sup>1</sup> Nomenclature from Hickman (1993) and Beauchamp (1986).

<sup>\*</sup> Non-native species



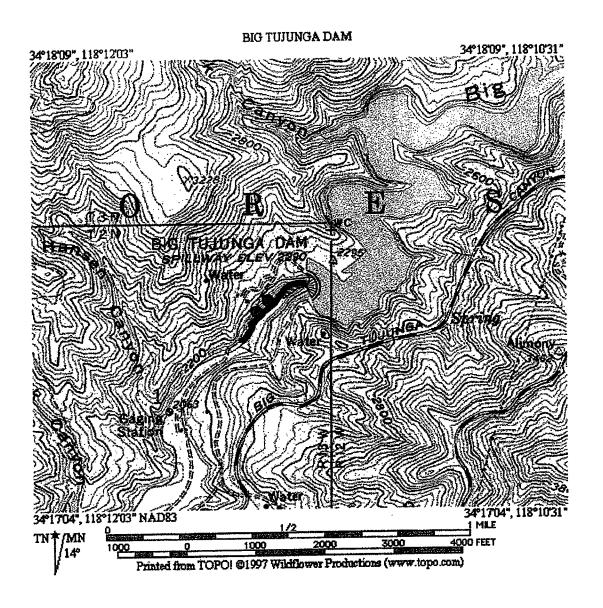


BIG TUJUNGA DAM

URS Job No. 11035-773-035

SITE LOCATION MAP FIGURE 1

## **URS**



Reference: Thomas Guide, 1999, San Diego County



**BIG TUJUNGA DAM** 

**SURVEY LOCATION** 

Brown Headed Cowbird Sightings

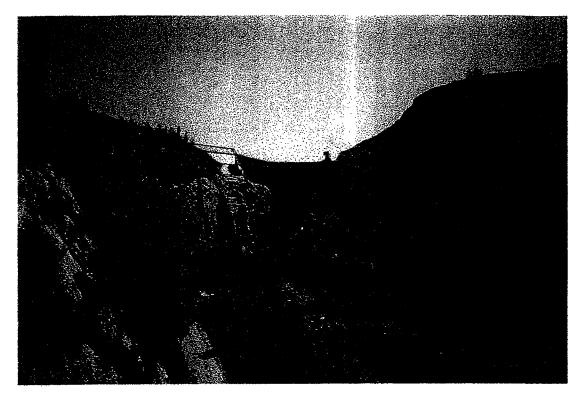
URS Job No. 11035-773-035

🕶 = Survey Area

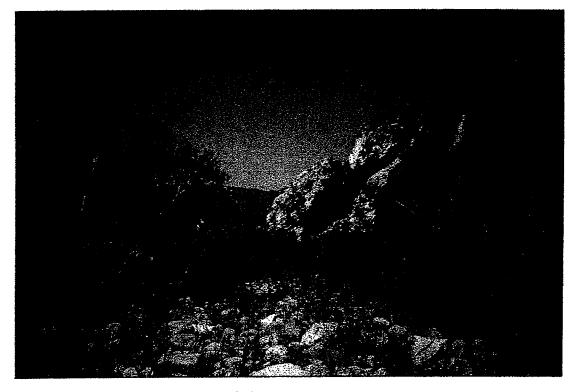
FIGURE 2

DAMES & MOORE

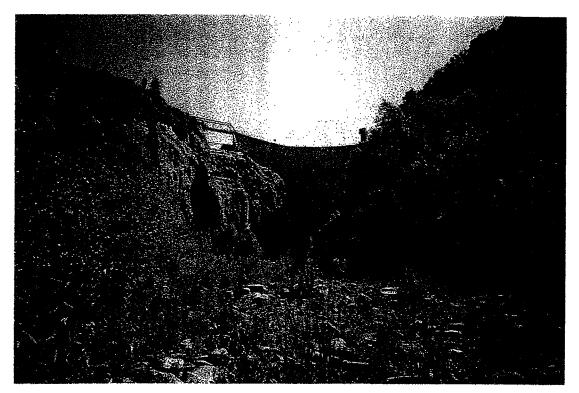
A DAMES & MOORE GROUP COMPANDS



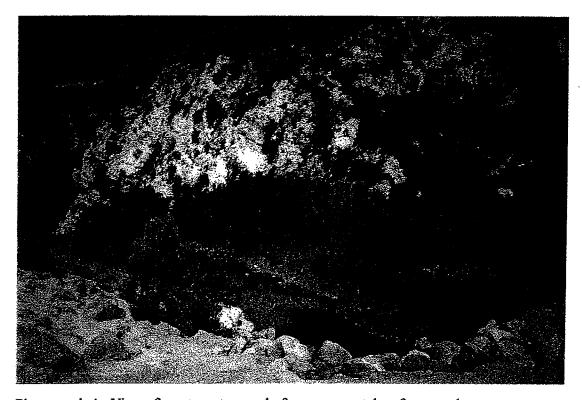
Photograph 1: View of survey area from above. Perspective is to the east.



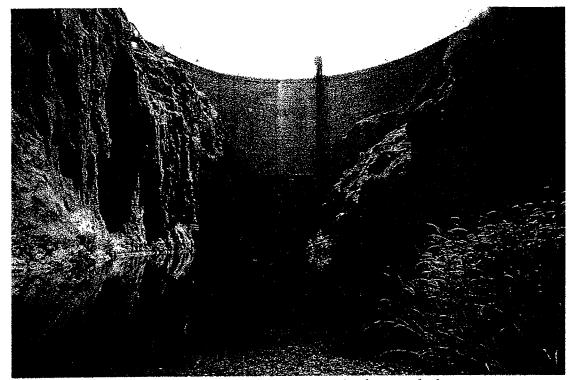
Photograph 2: View of survey area facing west.



Photograph 3: View of survey area facing east.



Photograph 4: View of most western end of survey area taken from road.



Photograph 5: Pond located at base of dam. Perspective is towards the east.



Photograph 6: Box elders located at north edge of road, adjacent to streambed.

#### AMENDMENT NUMBER 2 FS AGREEMENT NO. 3-MU-11050100-054 FEMA NO. HMGP-1008-3182 to the

## MEMORANDUM OF UNDERSTANDING between the

UNITED STATES DEPARTMENT OF AGRICULTURE FOREST SERVICE
ANGELES NATIONAL FOREST
and the

FEDERAL EMERGENCY MANAGEMENT AGENCY

THE BIG TUJUNGA DAM SEISMIC REHABILITATION AND SPILLWAY MODIFICATION PROJECT

DS AUG 29 PM 1: 05

This Amendment Number 2 FS Agreement No. 3-MU-11050100-054 FEMA No. HMGP-1008-3182 (hereinafter referred to as Amendment No. 2) hereby modifies the Memorandum of Understanding (hereinafter referred to as the MOU) between the United States Department of Agriculture Forest Service Angeles National Forest (hereinafter referred to as the Forest Service) and the Federal Emergency Management Agency (hereinafter referred to as FEMA) for the Big Tujunga Dam Seismic Rehabilitation and Spillway Modification Project.

A. PURPOSE: The purpose of this Amendment No. 2 is to modify previously agreed upon principles of organization and coordination between the Forest Service and FEMA for National Environmental Policy Act (hereinafter referred to as NEPA) compliance and establish agreed upon principles of organization and coordination between the Forest Service and FEMA for Endangered Species Act (hereinafter referred to as ESA) and National Historic Preservation Act (hereinafter referred to as NHPA) compliance for the Big Tujunga Dam Seismic Rehabilitation and Spillway Modification Project.

The Los Angeles County Department of Public Works (hereinafter referred to as LADPW) proposes to acquire FEMA funding to perform seismic rehabilitation and spillway modification of the Big Tujunga Dam (hereinafter referred to as Rehabilitation) with the intent of modifying the operations of Big Tujunga Dam in the future. FEMA and the Forest Service executed the MOU for Rehabilitation on 18 September 2003. Subsequent to the execution of the MOU, LADPW agreed to operate the Big Tujunga Dam during and after Rehabilitation in the same manner as it currently operates Big Tujunga Dam until it prepares and implements an approved revised operations plan for Big Tujunga Dam (hereinafter referred to as Operations). Based on this information, FEMA, the Forest Service, LADPW, the U.S. Fish and Wildlife Service (hereinafter referred to as USFWS), and the California Department of Fish and Game have reached a consensus resolution that

Rehabilitation and Operations constitute two separate projects for the purposes of NEPA and ESA compliance. FEMA and the Forest Service have reached a consensus resolution that Rehabilitation and Operations constitute two separate projects for the purposes of NHPA compliance.

B. STATEMENT OF MUTUAL BENEFIT AND INTERESTS: FEMA is identified as the NEPA, ESA, and NHPA Lead Agency for Rehabilitation. The Forest Service will serve as a Cooperating Agency for Rehabilitation. The Forest Service is identified as the NEPA, ESA, and NHPA Lead Agency for Operations. This Amendment No. 2 is limited to the preparation of documents related to NEPA, ESA, and NHPA compliance.

#### C. THE FOREST SERVICE SHALL:

- 1. Be responsible for overall NEPA, ESA, and NHPA compliance for Operations.
- 2. Manage the preparation of documents supporting NEPA, ESA, and NHPA compliance associated with Operations, though the Forest Service may task LADPW with the preparation of the aforementioned documents.
- 3. Assure that the environmental review process meets its regulatory and procedural guidelines as set out in Title 36 of the Code of Federal Regulations Part 215 and Forest Service Handbook 1909.15 for Operations.
- 4. Provide comments to FEMA concerning the following, as associated with Rehabilitation: the public scooping process, issue formulation, development of alternatives including the no action alternative, environmental impact analysis, Draft and Final Environmental Assessments, Finding of No Significant Impact (hereinafter referred to as the FONSI), Draft and Final Biological Assessments, consultation with USFWS, Draft and Final Cultural Resources Technical Reports, and consultation with the State Historic Preservation Officer (hereinafter referred to as the SHPO).

#### D. FEMA SHALL:

- 1. Be responsible for overall NEPA, ESA, and NHPA compliance for Rehabilitation.
- Manage the preparation of documents supporting NEPA, ESA, and NHPA
  compliance associated with Rehabilitation and serve as contract administrator
  for any consulting contracts for the preparation of the aforementioned
  documents.
- 3. Ensure that the Forest Service has the opportunity to review and comment on the following, as associated with Rehabilitation: the public scoping process, issue formulation, development of alternatives including the no action alternative, environmental impact analysis, Draft and Final Environmental Assessments, the FONSI, Draft and Final Biological Assessments, consultation with USFWS, Draft and Final Cultural Resources Technical Reports, and consultation with the SHPO.

- 4. Assure that the environmental review process meets its regulatory and procedural guidelines as set out in Title 44 of the Code of Federal Regulations Part 10 for Rehabilitation.
- E. IT IS MUTUALLY AGREED AND UNDERSTOOD BY ALL PARTIES THAT:

All terms and conditions of the MOU not modified herein by this Amendment No. 2 will remain in place for the duration of the MOU.

THE PARTIES HERETO have executed this instrument:

FEDERAL EMERGENCY
MANAGEMENT AGNECY
Region IX

Alessandro Amaglio
Environmental Officer

Aug. 19, 2005

UNITED STATES DEPARTMENT OF AGRICULTURE FOREST SERVICE Angeles National Forest

Jody Noiron
Forest Supervisor

Date

## Appendix B

**Mitigation Monitoring Reporting Program Matrix** 

#### MITIGATION MONITORING REPORTING PROGRAM

#### **BIG TUJUNGA DAM SEISMIC UPGRADE**

#### INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

Los Angeles County Department of Public Works, California

Land Use Mitigation Measures	Timing, Phasing or Schedule	Mitigation Verification	Party Responsible to Implement	Party Responsible to Monitor
Biological Resources			implement	
Perform nesting surveys prior to construction in riparian areas within 500' of all construction activities.	If construction activities start between March 15 and August 30.	Meet compliance by approval of submitted plans	Los Angeles County Department of Public Works	Los Angeles County Department of Public Works
Perform raptor nesting surveys prior to construction activities	If construction activities start between March 15 and August 30.			

- BIO 3 Implement Best Management Practices to minimize project sediment runoff and deposition.
- BIO 4 Direct temporary construction bypass outlet pipe into a dissipater device to minimize streambed and bank erosion. Rock material will be sufficient in size so as to not be displaced by varying outlet velocity. Rock will be natural rock (3 feet plus or to engineered specification). Efforts will be made to remove dissipater rock upon completion of construction and operation of the bypass pipe. Alternative dissipater may include a manufactured device that is temporarily placed within the limits of permitted impact.
- BIO 5 Comply with CDFG, ACOE, and RWQCB permit requirements to minimize impact to native vegetation, rare plants, wildlife, and water quality.
- BIO 6 Maintain hazardous materials spill control, containment, and cleanup kit of adequate size and materials for potential onsite accidental instream releases.
- BIO 7 Use the culvert crossing immediately downstream of the plunge pool to create an emergency detention basin to capture accidental instream releases.

Land Use Mitigation Measures	Timing, Phasing or Schedule	Mitigation Verification	Party Responsible to	Party Responsible to Monitor
			Implement	

Basin can be created with plywood or other sheeting to close the culvert inlet and contain contaminated water. Gravel or clean sandbags will be stored near the culvert crossing and used to create a temporary check dam and close the culverts on an as needed basis. Materials will not be left in stream during seasonal flows or when there is a chance of them being washed downstream of the crossing.

BIO 8 If vegetation will need to be removed during March 15 through September 15, then pre-disturbance surveys will be conducted to determine whether birds are nesting within the disturbance area and active nests are present. CDFG and USFWS will be contacted and consulted for concurrence to proceed prior to the start of new activity if active nests of bird species are discovered during vegetation removal.

BIO 9 During dewatering of the plunge pool, in compliance with environmental regulatory permit conditions, a qualified biologist with participation of a qualified native fish specialist will monitor the construction action. Native aquatic species will be captured by net as the water level within the plunge pool drops. Captured individuals will be temporarily held in insulated containers and then relocated downstream of the crossing culvert at the downstream limits of the project. No native species will be relocated upstream of the dam. Non-native invasive species will be captured and collected for scientific study. Non-native species will not be released to other locations.

BIO 10 No work will occur outside of the defined project limits.

BIO 11 A biological monitor will monitor construction activity at biweekly intervals to confirm compliance with permit conditions and mitigation measures to minimize potential impacts. The biological monitor will provide a monthly monitoring report and keep a log of each site visit observations and notes. A minimum of two visits will be conducted each month during active construction. At such time impacts to resources are less likely, monitoring would not be necessary.

BIO 12 Personnel onsite will not be permitted to hunt, or have unleashed dogs, cats, or other domesticated or wild pets while onsite.

BIO 13 Smoking will be restricted to areas of bare soil to minimize the potential of starting a wildfire.

BIO 14 All welding or grinding that produces sparks or has the potential to cause wildfire will be monitored by a construction personnel. This fire monitor will have a extinguisher suitable for the conditions, shovel, or other means of extinguishing stray sparks.

Land Use Mitigation Measures	Timing, Phasing or Schedule	Mitigation Verification	Party Responsible to Implement	Party Responsible to Monitor
			Implement	

BIO 15 All trash will be contained and regularly removed from the site. Containers will be sealed to prevent opening by wildlife.

BIO 16 All hazardous material spills and contaminated soil will be excavated or covered immediately upon discovery to minimize the potential for wildlife from being poisoned or otherwise harmed. Equipment fueling areas must be at least 100 feet from drainages and riparian habitats. The contractor will prepare a site-specific refueling plan for any equipment within the streambed work limits that cannot be readily moved for refueling. The refueling plan will be reviewed by LACDPW and its biological monitor.

BIO 17 Native trees will be avoided to the extent practicable. Small trees can be enclosed with fencing to protect the Drip Zone. Some trees of adequate size and health can be relocated in planned work areas such as the storage and staging yards. Any relocated tree will be artificially watered until it is established or as directed by the biological monitor for the project.

BIO 18 All construction lighting will be shielded or otherwise directed to reduce stray light illuminating native habitat beyond the project limits. Efforts will be made to minimize the project light canopy to the maximum extent possible.

BIO 19 All temporary generators or stationary engines will have sound baffling to reduce noise disturbance to adjacent native habitat and wildlife. Noise baffling may include mechanical specifications on new equipment (mufflers or other engine noise reducing design) or curtains or other enclosure to reduce noise levels.

BIO 20 All temporary disturbed soils shall be stabilized with a native plant species to minimize wind and water erosion upon completion of construction activity or when areas will not be disturbed during the rainy season.

TRA 1 The Los Angeles County Department of Public Works contractor shall develop and implement a construction related traffic plan to be used throughout the course of construction. The traffic plan should address District 7 Department of Transportation issues of concern as identified in the response to comments letter received by the county dated October 26, 2005.

Appendix C

**Public Notices** 

#### **Notice of Completion & Environmental Document Transmittal**

Appendix C

Mail to: State Clearinghouse, P. O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613 For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

sch# 2005101010

Project Title: Big Tujunga Dam	Seismic Upgrade Project					,		
Lead Agency: Los Angeles County	Department of Public Works	· · · · · · · · · · · · · · · · · · ·		Contact Pa	reon. Mr. St	erlina C	lippel, Project Manage	r
Mailing Address: 900 South Fren	nont Avenue, 2nd Floor				526) 458-635		**************************************	
City: Alhambra		Zip: 91803	1,1	County: Lo				
		. <i>L</i> ip		County:				
Project Location:				_ <del></del>		~ <del>~ ~</del> ~		
County: Los Angeles		City/Negroes	t Community: S	Sunland / Tuion	nga			
Cross Streets: Big Tujunga Canyon F	Road and MP 2+44	City/Neares	Community:		.5			
Assessor's Parcel No.: N/A		Camira. 1	Twp.	· 2N	Range:	1217/	Zip Code:	.0
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Tujunga Springs		Kange:	1377	Base: Condo	r meant con cauge
Within 2 Miles: State Hwy #:		•					· ,	<u> </u>
Airpons:		Railways:		an say the	Schools:		A A A A A A A A A A A A A A A A A A A	1.55 (4.54)
Document Type:						1	<del></del>	
				i			NV i	
	Draft EIR	. min	NEPA:		Of		Joint Document	: .
	Supplement/Subsequent (Prior SCH No.)	I EIR		□ EA □ Draft El	e :::		Final Document	•
Mit Neg Dec	Other	1 4		D FONSI	<b>3</b>	L	Other	
	-	<del></del>						
Local Action Type:				· · ·				-
☐ General Plan Upd	ata		Pri Walking					
	ate	T)	☐ Rezone ☐ Prezone				Annexation	
☐ General Plan Elen	nent	:			무선 살		Redevelopment	
Community Plan	☐ Site Plan	r perciopit	☐ Land Di	vision (Sub	division, e	tc.) DR	Coastal Permit Other Flood Control C	lam
				·			01.01	
Development Type:								
Residential: Units	Acres		☐ Water I	Facilities:	Туре	÷.	MGD	
Office: Sq.ft.	Acres Emple		🗆 Transpo		Гуре	:		
Commercial: Sq.ft.	Acres Emplo		🛮 Mining	•	Mineral			
☐ Industrial: Sq.ft.	Acres Emple	oyecs	Power:	-	Гуре	· ·	<del></del>	
☐ Educational				Freatment:			MGD_	
Total Acres (approx.)		····		lous Waste: Pood Control Dan		<del></del>		·
							· · · · · · · · · · · · · · · · · · ·	
Project Issues Discussed in I	Document:					-		
☐ Aesthetic/Visual	☐ Fiscal	П	Recreation/Par	rke		ST 12~		
☐ Agricultural Land	☐ Flood Plain/Flooding	z 🖸					getation iter Quality	
☐ Air Quality	☐ Forest Land/Fire Haz	card 🔲	Septic Systems	S			iter Supply/Ground	water
☐ Archeological/Historical			Sewer Capacit				tland/Riparian	W III.Ca
Biological Resources	☐ Minerals	; o	Soil Erosion/C	ompaction/	Grading 1	Will IN		
☐ Coastal Zone ☐ Drainage/Absorption	☐ Noisc		Solid Waste		ſ	∃ Gro	wth Inducing	
☐ Economic/Jobs	☐ Population/Housing I☐ Public Services/Facil	Balance []	Toxic/Hazardo	ous		] Lar		
	i dolle betvices racii	ines []	Traffic/Circula	ition			nulative Effects	
				- <del></del>	L	Oth	er	
Present Land Use/Zoning/Ger	neral Plan Designation	:						
USFS Land								
				·				

Project Description: (please use a separate page if necessary)

The Project includes placement of new concrete on the downstream face of the existing arch dam to create a thick arch. Additional modifications to the existing dam include raised parapet walls (including breakaway walls and or railings at the dam crest, dan crest modified as auxiliary spillway, a new elevator, lighting, dam controls system, new control house, new valves, valve house and instrumentation, boat dock, above ground deisel tank for new emergency generator, erosion protection, 2" diameter waterline between dam's water tanks and construction of a permanent access road.

Air Resources Board	X Office of Historic Preservation
Boating & Waterways, Department of	Office of Public School Construction
California Highway Patrol	Parks & Recreation
Caltrans District #	Pesticide Regulation, Department of
Caltrans Division of Aeronautics	Public Utilities Commission
Caltrans Planning (Headquarters)	Reclamation Board
Coachella Valley Mountains Conservancy	X Regional WQCB # Los Angeles
Coastal Commission	Resources Agency
Colorado River Board	S.F. Bay Conservation & Development Commission
Conservation, Department of	San Gabriel & Lower L.A. Rivers and Mtns Conservancy
Corrections, Department of	San Joaquin River Conservancy
Delta Protection Commission	Santa Monica Mountains Conservancy
Education, Department of	State Lands Commission
Energy Commission	SWRCB: Clean Water Grants
X Fish & Game Region # Angeles U.F.	X SWRCB: Water Quality
Food & Agriculture, Department of	SWRCB: Water Rights
X Forestry & Fire Protection	Tahoe Regional Planning Agency
General Services, Department of	Toxic Substances Control, Department of
Health Services, Department of	X Water Resources, Department of
Housing & Community Development	
Integrated Waste Management Board	Other
X Native American Heritage Commission	Other
X Office of Emergency Services	
ocal Public Review Period (to be filled in by lead a	agency)
그는 사고 있었는 동안 남자들이 되는 그를 들었다. 그리지 한테 그리고 가득을 내려왔다.	
Starting Date September 31, 2005	Ending Date October 31, 2005
ead Agency (Complete if applicable):	
Consulting Firm. URS Corporation	Applicant: Los Angeles County
Address: 2020 East First Street, Ste 400	Address; 900 South Fremont Avenue, 2nd Floor
City/State/Zip: Santa Ana, CA 92705	City/State/Zip: Alhambra, CA 91803
Contact: Kay Pratt	
Phone: 714-648-2808	Phone: (626) 458-635
Phone: 714-040-2000	



## PUBLIC NOTICE INITIAL STUDY / MITIGATED NEGATIVE DECLARATION (IS/MND) BIG TUJUNGA DAM SEISMIC UPGRADE

The County of Los Angeles Department of Public Works is proposing a seismic upgrade to the existing Big Tujunga Dam located in the Big Tujunga Canyon near the vicinity of Sunland / Tujunga, California. A Notice of Completion for an Mitigated Negative Declaration has been submitted to the California State Clearing House in accordance with the California Environmental Quality Act Guidelines Section 21091(b) and will be available for public review from Tuesday, October 4, 2005 to 5:00 p.m., Friday, November 4, 2005.

Please mail your comments to: Mr. Sterling Klippel, LACDPW, Public Works, 900 South Fremont Avenue, 2<sup>nd</sup> Floor, Alhambra, CA. 91803

A Public Meeting has been scheduled for the purpose of informing the community about the project, and to solicit public comments and information concerning potential impacts to the environment which, may result from the project:

#### **MEETING INFORMATION:**

The meeting will be held on Thursday, October 13, 2005, from 7:00 to 8:30 p.m. At the Lakeview Terrace Community Center, 11075 Foothill Blvd., Lakeview Terrace, California 91342.

#### The IS/MND is available for public review at the following locations:

- Sunland Tujunga Library: 7771 Foothill Blvd., Tujunga CA 91042
- Los Angeles City Central Library: 630 W. 5th St., Los Angeles, CA 90071
- Lakeview Terrace Public Library: 12002 Osborne St., Lake View Terrace, CA 91342

For further information please contact Kay Pratt: (714) 648-2808 or Sterling Klippel: (626) 458-6351.

## NOTICE OF PUBLIC MEETING INITIAL STUDY / MITIGATED NEGATIVE DECLARATION BIG TUJUNGA DAM SEISMIC UPGRADE

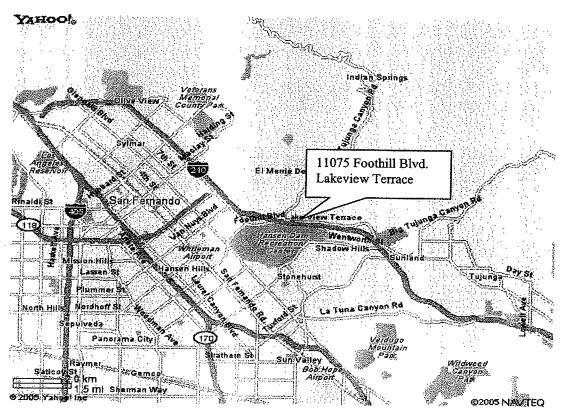
The County of Los Angeles Department of Public Works is proposing a seismic upgrade to the existing Big Tujunga Dam located in the Big Tujunga Canyon near the vicinity of Sunland / Tujunga, California. A Public Meeting has been scheduled for the purpose of informing the community about the project, and to solicit public comments and information concerning potential impacts to the environment which, may result from the project:

#### MEETING INFORMATION

DATE / TIME: Thursday, October 13, 2005, 6:30 to 8:00pm

**LOCATION**: Lakeview Terrace Community Center

**DIRECTIONS:** Take I-210 to Wheatland Exit toward Lakeview Terrace (Turn Right). Go One mile to Foothill Blvd. And turn left.



For further information please contact Sterling Klippel: (626) 458-6351.

The IS/MND is available for public review at the following locations:

Sunland Tujunga Library: 7771 Foothill Blvd., Tujunga CA 91042 Los Angeles City Central Library: 630 W. 5th St., Los Angeles, CA 90071

Lakeview Terrace Public Library: 12002 Osborne St., Lake View Terrace, CA 91342

#### BIG TUJUNGA DAM SEISMIC UPGRADE PROJECT

#### SPEAKER CARD

#### BIG TUJUNGA DAM SEISMIC UPGRADE PROJECT

#### SPEAKER CARD

Yes! I would like to speak on the Yes! I would like to speak on the Big Tujunga Dam Seismic Upgrade Project Initial Study/Mitigated Negative Declaration.

Organization		
City	State	Zip
Phone	(optional) Fax	(optional)
E-mail		(optional)

# Appendix D Public Comments Received And Responses to Comments



#### DEPARTMENT OF TRANSPORTATION

DISTRICT 7, REGIONAL PLANNING IGR/CEQA BRANCH 100 MAIN STREET LOS ANGELES, CA 90012-3606 PHONE (213) 897-3747 FAX (213) 897-1337



October 26, 2005

Mr. Sterling Clippel – Project Manager Los Angeles County Department of Public Works 900 South Fremont Avenue, Second Floor Alhambra, CA 91803

Big Tujunga Dam seismic upgrade
Mitigated Negative Declaration SCH no. 2005101010
Vicinity LOS/210/R11.08 IGR/CEQA # 051018/EK

Dear Mr. Clippel:

We have received the Initial Study for the application referenced above right. The proposed project is strengthening Big Tujunga Dam in anticipation of seismic events and to allow return to original design capacity for holding flood waters. For the California State Department of Transportation (Department), we have the following comments on the application.

Regarding construction, we give this reminder, that transportation of special construction equipment and/or materials, which requires the use of oversized-transport vehicles on State highways would require a Caltrans transportation permit.

We ask that the applicant avoid excessive or poorly timed truck platooning (caravans of trucks), even on a particular day when many truck trips per day to or from a location might be desirable. The issue is potential formation of queues on ramps of the freeway I-210 at such places as the Sunland Boulevard interchange (postmile R11.08). Of particular concern is to avoid the safety hazard of off-ramp queue backup onto freeway through travel lanes.

If you have any questions regarding our comments, refer to our internal IGR/CEQA Record Number 051018/EK; and please do not hesitate to contact our review coordinator Edwin Kampmann at (213) 897-1346 or to contact me at (213) 897-3747.

Sincerely,

CHERYL J. POWELL,

IGR/CEQA Program Manager

State of California - The Resources Agency

ARNOLD SCHWARZENEGGER, Governor



#### DEPARTMENT OF FISH AND GAME

http://www.dfg.ca.gov South Coast Region 4949 Viewridge Avenue San Diego, CA 92123 (858) 467-4201



November 2, 2005

#### BY FACSIMILE AND U.S. MAIL

Mr. Sterling Clippel
Los Angeles County Department of Public Works
900 South Freemont Avenue, 2<sup>nd</sup> Floor
Alhambra, CA 91803
Fax No.: (626) 979-5436



Draft Mitigated Negative Declaration for Big Tulunga Dam Seismlc Upgrade Project SCH # 2005101010, Los Angeles County

Dear Mr. Clippel:

The Department of Fish and Game (Department) has reviewed the Draft Mitigated Negative Declaration (MND) and Initial Study (IS) for the above-referenced project. The project will include placement of new concrete on the downstream face of the existing arch dam to create a thick-arch. Additional modifications include raising the parapet walls, dam crest modification as auxiliary spillway, a new elevator, new lighting and dam control system, a new control house, new valves and valve house, a boat dock and other infrastructure improvements including erosion protection measures. The project is located on Big Tujunga Canyon Road in the Community of Sunland/Tujunga.

The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the project (CEQA Section 15386) and pursuant to our authority as a Responsible Agency under the California Environmental Quality Act (CEQA), Section 15381 over those aspects of the proposed project that come under the purview of the California Endangered Species Act (Fish and Game Code Section 2050 et esq.) and Fish and Game Code Section 1600 et seq. regarding impacts to streams and lakes.

#### IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES

1. Least Bell's Vireo and Southwestern Willow Flycatcher - The MND states that surveys for the State and federally endangered least Bell's vireo (LBV) and State and federally endangered southwestern willow flycatcher were conducted in 2004. No LBV or SWWF were detected breeding within the project area. SWWF presumed to be migrants were observed in the project area. The MND sates that "breeding least Bell's vireo has not been recently observed in this region."

The Department recommends that protocol surveys for LBV and SWWF be repeated as the last surveys were conducted over one year ago. Surveys should be conducted on an annual basis during the life of the project. LBV has been observed throughout the breeding season for several years within the willow thickets behind Big Tujunga dam downstream from the project site. The likelihood of detecting breeding LBV within the

Mr. Sterling Clippel November 2, 2005 Page 2

project site within appropriate habitat is probable. The presence of LBV and/or SWWF would necessitate consultation with the Department under the California Endangered Species Act prior to commencement of the project.

- Santa Ana Speckled Dace The MND should include Santa Ana Speckled dace, a
  California Species of Special Concern, in the impact analysis for the project. SSD occurs
  within Big Tujunga Wash downstream from the project site.
- Dam Drawdown The MND states that the water impounded behind the dam must be drawn down and the plunge pool below the dam dewatered in order to accommodate the proposed dam improvement.

The Department is concerned that excessive fluctuations in creek flows associated with drawdown and other dewatering activities could adversely affect Santa Ana sucker and other sensitive fish species. The Department recommends that all water drawdown and dewatering strategies be approved by the Department prior to their implementation.

The Department is concerned that drawdown of the dam impoundment to the lowest existing discharge valve may result in the release of fine sediment into the creek; resulting in adverse impacts due to smothering of riparian resources and associated habitat for sensitive aquatic species. The Department recommends this impact be addressed in the MND. The Department further recommends that as much water as possible be drawn down via existing valves higher up on the dam so as to reduce the time necessary to draw down water via the lowest valve.

 Biological Monitor- The MND states that a biological monitor will be on site to salvage and relocate native aquatic species during dewatering of the plunge pool.

The Department recommends that the biological monitor be employed on site on a daily basis or as otherwise recommend by the Department to assure for maximum salvage and relocation of native aquatic species.

#### **IMPACTS TO RIPAIRIAN RESOURCES**

 The MND states that the project is subject to the discretionary requirements of the Department.

The Department may require a Streambed Alteration Agreement (SAA) pursuant to Section 1600 et seq. of the Fish and Game Code, be obtained by the applicant prior to any project related direct or indirect impact to the SCR and/or other Department jurisdictional drainages or associated riparian resources. Early consultation is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. Please contact Mr. Ronnie Glick at (805) 557-0589 to discuss this issue further.

The Department recommends that the above concerns are addressed prior to lead agency approval of the proposed project.

Mr. Sterling Clippel November 2, 2005 Page 3

Thank you for this opportunity to provide comments. Questions regarding this letter and further coordination on these issues should be directed to Mr. Scott Harris, Associate Wildlife Biologist, at (626) 797-3170.

Sincerely,

Larry L. Eng, Ph.D. Regional Manager

c: Ms. Morgan Wehtje, Camarillo Mr. Scott Harris, Pasadena Ms. Betty Courtney, Newhall RM-Chron HCP-Chron

Department of Fish and Game

Mr. Scott Morgan State Clearinghouse, Sacramento



#### **COMMENT FORM**

If you would like to comment on the Big Tujunga Dam Seismic Upgrade Project, please provide the information below. Your comments will be addressed in the Initial Study/ Mitigated Negative Declaration. Please mail this form by November 4, 2005, 5:00p.m. to:

Mr. Sterling Klippel
Los Angeles Department of Public Works
900 South Fremont Avenue, 2<sup>nd</sup>. Floor
Alhambra, CA 91803
Telephone (626)-458-6351
email: Sklippel@ladpw.org

Name (optional) Barbara Tarnowski Mario Lange Company
Organization (optional)
Name (optional) Day Days are arnows in the first and the state of the
City lyunga State CA Zip 91042
Phone (98) 352-8394 (optional) Fax (optional)
E-mail babsi bash a host mail com (optional)
Comments (attach additional pages if needed) Doppose the
draining of the plunge pool. Since your
project well not return all of the
wildlife that was removed from the
plunge pool. Return to the plunge
pool. There is a reason why they
prefer the plunge pool to down stream
Stream locations. Freditors, temperature
Stream focations. Preditors, temperature,



#### **COMMENT FORM**

If you would like to comment on the Big Tujunga Dam Seismic Upgrade Project, please provide the information below. Your comments will be addressed in the Initial Study/ Mitigated Negative Declaration. Please mail this form by November 4, 2005, 5:00p.m. to:

Mr. Sterling Klippel
Los Angeles Department of Public Works
900 South Fremont Avenue, 2<sup>nd</sup>. Floor
Alhambra, CA 91803
Telephone (626)-458-6351
email: Sklippel@ladpw.org

Name (optional) Bowbara Larnowski
Organization (optional) "Speaker for the animals" (SFTA)
Address 10410 Las Lunitas Ave.
City Tylunga State CA Zip 91042 Million Lange
Phone (8/8) 357 - 874 (optional) Fax (optional) (optional)
Address 10 4 0 Las Lunitas Aue. Ms Barbara City Tujunga State CA Zip 91042 Milinga CA Junitario Cas Aug. Phone (818) 352-8294 (optional) Fax (optional) (optional) Fax (optional) (optional)
Comments (attach additional pages if needed) I oppose all but recessar
work for crack in Dam)
This project is too elaborate.
It sounds like Hoover Dam being
leulte
The yeld life species of endangered
and threatened categories will be
affected negatively " Were to the
more fact of how long this
project well take to complete.
Wild life well leave when there
is prolonged human activity and
tanali a di salati
mens and muchins a lights
and etc. for long periods!

----Original Message-----

From: BT [mailto:babsi\_bash@hotmail.com]
Sent: Wednesday, October 19, 2005 3:46 PM

To: Klippel, Sterling

Subject: Big T Dam upgrda project IS/MND

Thank you for your time. How long will the plunge pool remain dewatered? After work is done will it be filled up again? Thank you

Hello Barbara,

The plunge pool which is infested with bull frogs will be dewatered during construction activities for approximately two to three years. The plunge pool will be rewatered during completion of the project.

thanks, Sterling

(626) 458-6351

P-1

In accordance with Section 15073 of the CEQA Guidelines, this section identifies all substantive comments received during the public comment period between October 4, 2005 and November 4, 2005, and provides a response to those comments that specifically address missing information relative to the environmental assessment for the project. New information specific to the project and any information regarding potential known resources that may be affected by the project are addressed. Public and Agency Comments are addressed in order of receipt, and may be referenced by number on the letter copies at the end of this section.

## S1-1: RESPONSE TO CONSTRUCTION RELATED TRAFFIC IMPACTS FOR DISTRICT 7 CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS):

<u>Comment</u>: Caltrans provides a reminder, that transportation of special construction equipment and/or materials, which, requires the use of oversized-transport vehicles on state highways would require a Caltrans transportation permit. In addition, the department requests the excessive and poorly timed truck caravans be avoided. Specifically, the potential formation of queues on, ramps of the 1-210 freeway at such places as the Sunland Boulevard interchange (post-mile R11.08). Of particular concern is the avoidance of hazards associated with off-ramp queue back-up onto the freeway through travel lanes.

Response: The Los Angeles County Department of Public Works acknowledges comments made by Caltrans for the project and will insure that transportation of special construction equipment and/or materials, requiring the use of oversized-transport vehicles on the state highway obtain a Caltrans transportation permit. In addition, the Department will work with contractors to develop and implement a traffic safety plan to address excessive and poorly timed truck caravans. Specifically, a plan which addresses the formation of queues on ramps of the 1-210 freeway at such places as the Sunland Boulevard interchange (post-mile R11.08), or others which may pose like conditions. The plan will also focus on the avoidance of hazards associated with off-ramp queue back-up onto the freeway through travel lanes and will be kept in the superintendent's vehicle at all times. Traffic Safety Meetings should be conducted, for the purpose, of insuring that the plan is fully implemented at all times.

## S2-1: RESPONSE TO LEAST BELL'S VIRO AND SOUTHWESTERN WILLOW FLYCATCHER FOR THE CALIFORNIA DEPARTMENT OF FISH AND GAME:

<u>Comment</u>: The MND states that surveys for the State and Federally endangered Least Bells Vireo (LBV) and the Southwestern Willow Flycatcher (SWWF) were conducted in 2004 and that no LBV or SWWF were detected. The MND states that "breeding Least Bells Vireo has not been recently observed in this region". The California Department of Fish and Game (CDFG) believes that the likely-hood of detecting breeding LBV within the project area within appropriate habitat is probable and therefore recommends that protocol surveys for these species be repeated as the last surveys were conducted over one year ago. The Department also noted, that LBV have been observed throughout the breeding season

for several years within the willow thickets behind Big Tujunga dam downstream from the project site and recommend that surveysbe conducted on an annual basis throughout the life of the project.

**Response:** Based upon this information, Los Angeles County Department of Public Works will conduct LBV and SWWF surveys as requested and will seek consultation with the Department in accordance with the California Endangered Species Act prior to commencement of the project.

## S2-2: RESPONSE TO SANTA ANA SPECKLED DACE COMMENT FOR THE CALIFORNIA DEPARTMENT OF FISH AND GAME:

<u>Comment</u>: The Department stated that the MND should include an impact analysis for the Santa Ana Speckled Dace, a California Species of Special Concern which occurs within the Big Tujunga Wash from the project site.

**Response:** The Los Angeles County Department of Public Works has included this species in Table 5. This species does not occur in the project area and the project will not directly or indirectly affect this species. Species that do not occur within the project limits or have the potential to be directly or indirectly affected are not addressed in the environmental project analysis.

## S2-3: RESPONSE TO DAM DRAWDOWN COMMENT FOR THE CALIFORNIA DEPARTMENT OF FISH AND GAME

<u>Comment</u>: The California Department of Fish and Game (CDFG) expressed concern that fluctuations in creek flows and sediment laden flows could result from planned reservoir lowering activities and plunge pool dewatering associated with construction of the thickened arch.

**Response:** These impacts are not anticipated for the following reasons:

- The reservoir is not planned to be completely dewatered.
- The releases will be made from the same valves at the same elevation as current flood control and water conservation releases. These valves are used regularly and are well above the sediment level on the bottom of the reservoir.
- Drawdown releases will be ramped to avoid surges and excessive fluctuations The proposed lower reservoir elevation of 2160 feet will maintain approximately 180 ac-ft of reservoir volume above the lowest outlet located at elevation 2142.5 feet.
- To ensure that releases do not contain high levels of sediment the dam's lowest outlet will not be used.
- Dewatering of the plunge pool will be accomplished with pumps. The dewatering plan will be submitted to CDFG for approval and will include mitigation measures to ensure fine sediment is not discharged into the creek during dewatering.

Los Angeles County Department of Public Works will continue to consult with CDFG regarding water drawdown and dewatering activities for this project.

## S2-4: RESPONSE TO BIOLOGICAL MONITORING COMMENT FOR THE CALIFORNIA DEPARTMENT OF FISH AND GAME:

<u>Comment</u>: The MND states that a qualified biological monitor will be employed on site to salvage and relocate native aquatic species during dewatering of the plunge pool. In response to this MND, the Department recommends that the biological monitor be employed on site on a daily basis or as otherwise recommended by the Department to assure for maximum salvage and relocation of the aquatic native species.

**Response:** The Los Angeles County Department of Public Works will consult with the CDFG to establish appropriate survey protocol's necessary to meet the needs for the project and to insure that a biological monitor is employed on site as recommended by the Department to assure for maximum salvage and relocation of the aquatic native species.

## S2-5: RESPONSE TO IMPACTS TO RIPERIAN RESOURCES COMMENT FOR THE CALIFORNIA DEPARTMENT OF FISH AND GAME:

<u>Comment</u>: The MND states, that the project is subject to the discretionary requirements of CDFG. The Department may require a Streambed Alteration Agreement (SAA) pursuant to Section 1600 et seq. of the Fish and Game Code prior to project related activities, and recommends early consultation with the Department.

**Response:** The Los Angeles County Department of Public Works, will maintain ongoing communication and consultation with the Department, to determine the need for a Streambed Alteration Agreement (SAA) pursuant to Section 1600 et seq., of the Fish and Game Code, prior to project related activities, and will work with them to avoid or reduce any potential impacts to fish and wildlife resources.

#### P-1: Response to Plunge Pool De-watering

**Question:** How long will the plunge pool remain de-watered? After work is done will it be filled up again?

**Response:** The plunge pool which is infested with bull frogs will be dewatered during construction activities for approximately two to three years. The plunge pool will be rewatered during completion of the project.

#### DEPARTMENT OF TRANSPORTATION

DISTRICT 7, REGIONAL PLANNING IGR/CEQA BRANCH 100 MAIN STREET LOS ANGELES, CA 90012-3606 PHONE (213) 897-3747 FAX (213) 897-1337





Mr. Sterling Clippel – Project Manager Los Angeles County Department of Public Works 900 South Fremont Avenue, Second Floor Alhambra, CA 91803

Big Tujunga Dam seismic upgrade
Mitigated Negative Declaration SCH no. 2005101010
Vicinity LOS/210/R11.08 IGR/CEQA # 051018/EK

Dear Mr. Clippel:

We have received the Initial Study for the application referenced above right. The proposed project is strengthening Big Tujunga Dam in anticipation of seismic events and to allow return to original design capacity for holding flood waters. For the California State Department of Transportation (Department), we have the following comments on the application.

S-2-1 Regarding construction, we give this reminder, that transportation of special construction equipment and/or materials, which requires the use of oversized-transport vehicles on State highways would require a Caltrans transportation permit.

We ask that the applicant avoid excessive or poorly timed truck platooning (caravans of trucks), even on a particular day when many truck trips per day to or from a location might be desirable. The issue is potential formation of queues on ramps of the freeway I-210 at such places as the Sunland Boulevard interchange (postmile R11.08). Of particular concern is to avoid the safety hazard of off-ramp queue backup onto freeway through travel lanes.

If you have any questions regarding our comments, refer to our internal IGR/CEQA Record Number 051018/EK; and please do not hesitate to contact our review coordinator Edwin Kampmann at (213) 897-1346 or to contact me at (213) 897-3747.

Sincerely,

CHERYL J. POWELL

IGR/CEQA Program Manager

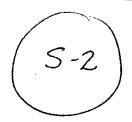
State of California - The Resources Agency

ARNOLD SCHWARZENEGGER, GOVERNOR



#### DEPARTMENT OF FISH AND GAME

http://www.dfg.ca.gov South Coast Region 4949 Viewridge Avenue San Diego, CA 92123 (858) 467-4201





November 2, 2005

#### BY FACSIMILE AND U.S. MAIL

Mr. Sterling Clippel
Los Angeles County Department of Public Works
900 South Freemont Avenue, 2<sup>nd</sup> Floor
Alhambra, CA 91803
Fax No.: (626) 979-5436



Draft Mitigated Negative Declaration for Big Tujunga Dam Seismic Upgrade Project SCH # 2005101010, Los Angeles County

Dear Mr. Clippel:

The Department of Fish and Game (Department) has reviewed the Draft Mitigated Negative Declaration (MND) and Initial Study (IS) for the above-referenced project. The project will include placement of new concrete on the downstream face of the existing arch dam to create a thick-arch. Additional modifications include raising the parapet walls, dam crest modification as auxiliary spillway, a new elevator, new lighting and dam control system, a new control house, new valves and valve house, a boat dock and other infrastructure improvements including erosion protection measures. The project is located on Big Tujunga Canyon Road in the Community of Sunland/Tujunga.

The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the project (CEQA Section 15386) and pursuant to our authority as a Responsible Agency under the California Environmental Quality Act (CEQA), Section 15381 over those aspects of the proposed project that come under the purview of the California Endangered Species Act (Fish and Game Code Section 2050 et esq.) and Fish and Game Code Section 1600 et seq. regarding impacts to streams and lakes.

#### IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES

Least Bell's Vireo and Southwestern Willow Flycatcher - The MND states that surveys for the State and federally endangered least Bell's vireo (LBV) and State and federally endangered southwestern willow flycatcher were conducted in 2004. No LBV or SWWF were detected breeding within the project area. SWWF presumed to be migrants were observed in the project area. The MND sates that "breeding least Bell's vireo has not been recently observed in this region."

5-2-1

1.

The Department recommends that protocol surveys for LBV and SWWF be repeated as the last surveys were conducted over one year ago. Surveys should be conducted on an annual basis during the life of the project. LBV has been observed throughout the breeding season for several years within the willow thickets behind Big Tujunga dam downstream from the project site. The likelihood of detecting breeding LBV within the

Mr. Sterling Clippel November 2, 2005 Page 2

5-2-1

project site within appropriate habitat is probable. The presence of LBV and/or SWWF would necessitate consultation with the Department under the California Endangered Species Act prior to commencement of the project.

S-2-22

Santa Ana Speckled Dace — The MND should include Santa Ana Speckled dace, a California Species of Special Concern, in the impact analysis for the project. SSD occurs within Big Tujunga Wash downstream from the project site.

3.

<u>Dam Drawdown</u> - The MND states that the water impounded behind the dam must be drawn down and the plunge pool below the dam dewatered in order to accommodate the proposed dam improvement.

5-7-3

The Department is concerned that excessive fluctuations in creek flows associated with drawdown and other dewatering activities could adversely affect Santa Ana sucker and other sensitive fish species. The Department recommends that all water drawdown and dewatering strategies be approved by the Department prior to their implementation.

The Department is concerned that drawdown of the dam impoundment to the lowest existing discharge valve may result in the release of fine sediment into the creek; resulting in adverse impacts due to smothering of riparian resources and associated habitat for sensitive aquatic species. The Department recommends this impact be addressed in the MND. The Department further recommends that as much water as possible be drawn down via existing valves higher up on the dam so as to reduce the time necessary to draw down water via the lowest valve.

4.

Biological Monitor- The MND states that a biological monitor will be on site to salvage and relocate native aquatic species during dewatering of the plunge pool.

5-2-4

The Department recommends that the biological monitor be employed on site on a daily basis or as otherwise recommend by the Department to assure for maximum salvage and relocation of native aquatic species.

#### **IMPACTS TO RIPAIRIAN RESOURCES**

 The MND states that the project is subject to the discretionary requirements of the Department.

5-2-5

The Department may require a Streambed Alteration Agreement (SAA) pursuant to Section 1600 et seq. of the Fish and Game Code, be obtained by the applicant prior to any project related direct or indirect impact to the SCR and/or other Department jurisdictional drainages or associated riparian resources. Early consultation is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. Please contact Mr. Ronnie Glick at (805) 557-0589 to discuss this issue further.

The Department recommends that the above concerns are addressed prior to lead agency approval of the proposed project.

Mr. Sterling Clippel November 2, 2005 Page 3

Thank you for this opportunity to provide comments. Questions regarding this letter and further coordination on these issues should be directed to Mr. Scott Harris, Associate Wildlife Biologist, at (626) 797-3170.

Sincerely,

Lerry L. Eng. Ph.D. Regional Manager

Ms. Morgan Wehtje, Camarillo
Mr. Scott Harris, Pasadena
Ms. Betty Courtney, Newhall
RM-Chron
HCP-Chron
Department of Fish and Game

Mr. Scott Morgan State Clearinghouse, Sacramento ----Original Message----

From: B T [mailto:babsi\_bash@hotmail.com]
Sent: Wednesday, October 19, 2005 3:46 PM

To: Klippel, Sterling

Subject: Big T Dam upgrda project IS/MND

P-1

**Question:** Thank you for your time. How long will the plunge pool remain dewatered? After work is done will it be filled up again? Thank you

#### Response:

Hello Barbara,

The plunge pool which is infested with bull frogs will be dewatered during construction activities for approximately two to three years. The plunge pool will be rewatered during completion of the project.

thanks, Sterling

(626) 458-6351